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Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VII. TORONTO, JANUARY, 1895. No. 1

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

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CONTENTS.

Review of the Year 1894.
TRADE NOTES.
Pharmacy in England.
DRUG CLERKS' COLUMN.—Felicitatem Adversus Gradus.
Examination Questions, Ontario College of Pharmacy.
Ontario College of Pharmacy—Results of Examination.
Observation Sheets of the American Pharmaceutical Association.
Eau de Cologne Tipplers.
A New Saccharine Patent.
EDITORIAL.—Volume Seven. The New Year. Druggists and Physicians. Cash Discount.
Perfumes and Formulæ for their Manufacture.
The Disinfection of the Dust of Rooms.
Three Creosote Preparations.
The Origin of Pharmacy.
Pyrogallate of Bismuth.
Demonstration of Wood Fibre in Vapor.
PHARMACY ABROAD.
A Scientific Discovery from Japan.
Test for Wintergreen Oil.
Camphor.
Antidotes for Poisons.
Thermometers and Thermometer Testing.
Explosive Mixtures.
Salubrine.
FORMULARY.
Elecampane as an Antiseptic.
To Distinguish between Lemon and Orange Peel.
PHOTOGRAPHIC NOTES.
Pharmaceutical Analysis.
BUSINESS NOTICES.
BOOKS AND MAGAZINES.
Drug Reports.

Europe has 383,290 blind, 230,200 deaf mutes.

In Holland more women than men die of apoplexy.

Of 10,000 deaths in England, 184 are from measles.

Bright's disease is most prevalent in Shanghai, China.

Review of the Year 1894.

During the past year considerable activity has prevailed on the chemical side of pharmacology, and in the more purely medical and bacteriological fields, first opened up by Pasteur, Brown-Séquard, and Koch. Pharmacy depends to a large extent upon the progress of therapeutics, and it is of keen interest, on the threshold of the new year, to take notice in what direction the progress is tending. For some years the tendency was strongly in favor of the organic derivatives which modern chemistry has so wonderfully developed, and to which we owe the existence of antipyrin, antifebrin, phenacetin, etc. But more recently the development has taken place upon the lines suggested by the late Dr. Brown-Séquard, and animal extracts have been prominently introduced and boomed. The past year will be historically remarkable for the rise and development of what is already known as serum therapeutics.

SERUM THERAPEUTICS.

After the discovery of the bacillus of diphtheria by Loeffler, cultures were made which were found to produce diphtheria in animals inoculated with it. The bacillus is accompanied by toxins which probably assist in producing the disease, and from these cultures toxalbumin may also be obtained. Roux further advanced the subject by showing that the introduction of these substances into the tissues conferred immunity. Behring and Kitasato next discovered, in 1890, that the serum of the blood of animals previously rendered immune by graduated doses of the toxin was itself antitoxic, hence the name of antitoxin. The treatment of diphtheria and tetanus by antitoxin is now on its trial, but it is important to note that most of the leading authorities insist that all the ordinary measures should be employed at the same time that antitoxin is used. The accounts, on the whole, are very favorable, but one or two notes of warning have been uttered in Europe against too high an expectation being formed. In handling antitoxin, care should be taken not to expose it to light more than can be helped, and all vessels, hypodermic syringes, etc., should be carefully sterilized by heat, carbolic acid, or absolute alcohol.

Professor Klebs, of Berlin, has recently patented *antiphthisin* for use in tuberculosis. It is prepared from the tubercle bacillus culture fluid by the addition of cresol, filtering and adding sodio-bismuth iodide in excess, then caustic soda, again filtering, and finally precipitating antiphthisin from the liquid by the addition of alcohol.

It is of interest to record here that Koch's *tuberculin*, the unfortunate forerunner of antitoxin, has been found of great utility as a diagnostic agent in bovine tuberculosis. Dr. Schweinitz, of the Washington Bureau of Animal Industry, says that by its use it will be possible, eventually, if not to entirely eradicate, at any rate to control and limit the disease among cattle. Another diagnostic agent is *mallein*, which is being extensively employed for the detection of glanders, and of which veterinarians speak in highest praise In each case the liquid is injected subcutaneously, in doses of about 1 c.c., with the usual antiseptic precautions, and the temperature carefully taken, at intervals, to note if any decided increase has occurred.

NEW REMEDIES.

The year has been by no means unproductive of new remedies, although there is some sign of a diminution in the number emanating from German sources. Increased attention is being directed to the development of those previously introduced which appear to have most claim upon medical recognition. Thus, *thioform*, one of the innumerable substitutes for iodoform, has been strongly recommended in veterinary practice, and employed with success.

Amongst those which have been brought more or less into prominence during the year are the following: *Ferratin*, first introduced by Schmiedeberg, and isolated by him from the liver of the pig, has been produced artificially as an albuminate of iron. It contains 7 per cent. in an easily assimilable form, and has been employed with the most satisfactory results in the treatment of anæmia. The dose is from 3 to 20 grains. *Calcium glycero-phosphate*, the calcium salt of glycero-phosphoric acid, is a white crystalline powder, soluble 1 in 15 of cold water, but less soluble in hot. Glycero-phosphoric acid is one of the products of the splitting up of lecithin, and is supposed to present the phosphoric

acid in a specially assimilable form. It has been administered *per os*, and by subcutaneous injection in ataxia, sciatica, and neurasthenia. The potassium, ammonium, and sodium salts are also prepared, and the dose for injection is about five grains three times a day. If taken *per os*, the dose must be larger. *Tussol*, a saline combination of mandelic acid and antipyrin, which is stated to be more effective than antipyrin, and, as the name suggests, is introduced as a cough remedy. The dose, for adults, is 10 to 15 grains; children, less in proportion to age. *Dermol* is a compound of chrysophanic acid and bismuth, stated to have the formula $Bi(C_{10}-H_9\ O_5)_2\ Bi\ O_3$. It is an amorphous yellow powder, and recommended in skin affections as a substitute for dermatol—the basic gallate of bismuth—either in the form of dusting powder or ointment. *Formalin*, the name given to formaldehyde, is a powerful antiseptic, preservative, and disinfectant. It is supplied in a concentrated state, containing at least 40 per cent. of formaldehyde. *Iodo-cresol*, or, more correctly, tri-iodo-cresol, is a crystalline substance, soluble in chloroform, fats, and oils, but only sparingly soluble in alcohol. It is characterized by its freedom from color and smell. Therapeutic data are yet wanting. Aluminium has been a fruitful source of new remedies of recent years, and *aluminium boro-formate* is the latest. It is readily soluble in water, and recommended in place of alumnol, being milder in its effect, whilst equally antiseptic, and, therefore, particularly adapted for application to the throat. Amongst those which have also appeared in our columns are *antitetraizine*, *ingestol*, *lignosulfine*, etc.

PHARMACY.

The most important event of general interest to pharmacists has been the announcement of an Imperial Pharmacopœia, specially designed to meet the wants of the British colonies. The work of revision will be taken in hand towards the end of this year, and already several suggestions have been tendered from India and Australia. It is of great importance that Canada should formulate recommendations, so as to bring the British Pharmacopœia more into line with everyday requirements. To this end early co-operation of Canadian physicians and pharmacists is very desirable, and we have already urged the provincial associations to take prompt action in the matter.

New editions of the Swiss and Bulgarian Pharmacopœias have appeared during 1894, and comments and criticisms have freely flowed in the pharmaceutical press respecting the new United States Pharmacopœia.

The International Congress of Hygiene took place at Buda-Pesth, Hungary, in September. The usual resolutions in favor of an international pharmacopœia were passed by the pharmacy section, but little of importance transpired.

Among the numerous papers dealing with improvements in pharmacy published during the year, we can only select a few for special notice. Granular effervescent preparations have been ably dealt with by Bradley. Tinctures have received further attention from Farr and Wright, whilst Dodsley has recommended some improved methods for their manufacture, and Parker has made several good suggestions to recover the spirit left in the marc. White considers that infusions may be kept any reasonable length of time if sterilization is effected and a minute quantity of chloroform added, as a preservative. Infusions prepared from concentrated preparations rarely agree with recently-prepared specimens, says Barclay. Spirit of nitrous ether can be kept nearly two years without suffering much depreciation, according to Jones, if the bottles containing it are stoppered, luted, and stored in a cool cellar. McDonnell suggested the more rapid preparation of iodine ointment by merely heating the iodine and lard together, stirring well till dissolved. Henry recommended a tincture of iodine of the strength 1 in 16, which should replace the present liniment and tincture of the British Pharmacopœia. Simple resin and eucalyptus ointments are best prepared without any stirring during the cooling, as recommended in the case of ceratum resinæ. United States Pharmacopœia advocates Boa. Miss. Cretce, which has been the subject of a paper by Professor Scoville, who hints that precipitated chalk is frequently used instead of prepared chalk, as the product is whiter. This practice is, of course, reprehended. Glucose is a perennial recommendation as a substitute for syrup in preparations, like syrup of iodide of iron, prone to change. The original formula for *Blaud's pills* is published by Ince: Dried sulphate of iron, 30; dried carbonate of potassium, 30; powdered gum acacia, 5; water, 30; syrup, 15. This quantity in grammes to produce 120 pills. Note that a medical committee has announced that the pharmacopœial dose for antifebrin, 4 to 10 grains, is excessive; the proper dosage is from 1 to 4 grains.

PHARMACOGNOSY.

A good deal of solid work has been done in clearing up the pharmacognosy of some of the lesser known drugs. Hooper finds an alkaloid in *Abrus precatorius* root with glycyrrhizin and an acid resin. The *aconite* investigation of Professor Dunstan and his pupils has not advanced much, whilst an amusing controversy as to priority in discovery has taken place between Dunstan and Freund. There is no doubt that aconitine splits up, when heated, into acetic acid and another alkaloid. Keller obtained .87 to 1.23 per cent. of aconitine from aconite root. Dr. Aitchison reported that *asafœtida* is certainly not the product of *Ferula Narthex*, nor is it collected in Kashmir, but comes from Afghanistan proper. Greenish discovered asphodel root as an adulterant of *white hellebore*. *Balsam of Peru* has been examined by Trog, who finds that the fluid part is benzyl-benzoate with cinnamic acid and vanillin. *Cactus grandiflorus*, recommended very highly some few years back as a heart-tonic, is reported by Gordon Sharp to be inert, and certainly produces no effects, pharmacologically, comparable to digitalis. *Cayenne pepper* adulterated with rice has been detected in Washington. *Cinnamon* and *cassia* barks have been carefully compared by Pfister. Schmidt criticizes the description of *chrysarobin* and *chrysophanic acid* given in various pharmacopœias. The former gives a yellow color with sulphuric acid and brown with caustic potash, whilst the chrysophanic acid gives a red color with the acid and blue with potash. Schorm purifies *coniine* and *nicotine* from their hydrochlorates by means of peroxide of hydrogen. *Dorstenia contrayeroa* is reported by Mussi to yield an amorphous alkaloid, contrayeroine, which forms a white tartrate. The plant is used in Brazil as an antidote to snake bites. *Ergot* has yielded to Bohringer yet another active constituent, spasmotin or sphacelotoxin, which is stated to be very active in doses of 4 to 8 centigrammes. *Escrine* crystallizes from benzene in large flat prisms, and melts at 105-106° C., according to Petit. *Guaiacol* is best applied by painting doses of 4 grammes upon the skin, when 50 per cent. is absorbed and may be obtained from the urine, state Linnessier and Lannois. *Ginger* is being considerably adulterated with exhausted ginger, and may be detected by the ash. Pohl has given a concise botanical description of *hydrastis* and localized berberine. *Ipecacuanha* is being thoroughly examined by Paul and Cownley, who report that emetine is a mixture of at least two alkaloids. The ash of *kamala* contains a considerable proportion of manganese, and so-called kamaline is rottlerin, $C_{11}\ H_{10}\ O_3$, says Bartolotti. *Kola* is the subject of almost the last monograph written by Professor Flückiger. In his usual masterly fashion, he traced the history of the drug and its chemical constituents. The paper was published in our October issue. *Konsso* yields a highly active substance, kosotoxin, according to Leichsenring; but commercial kosin is not a natural constituent, and isf ormed during isolation. *Jaborandi* leaves are scarce, and another pilocarpus plant has been substituted, called ceara jaborandi, which is practically devoid of pilocarpine. Oils have been examined by Schimmel during the year, and much interesting information supplied. *Oil of eucalyptus* is the subject of a recent note by Holmes, in which he gives valuable results obtained by Payne. The average yield of eucalyptol is about fifty per cent. from four or five different species. *Pereira bark* has yielded *vellosine* to Freund, which has a similar action to brucine. *Sugar of milk* sometimes contains as much as 1.5 per cent. of ash, chiefly MgO, so Braithwaite recommends a limit of 0.25 per cent. *Saffron* should not lose more than 12 per cent. of moisture at 202° F., and 7 per cent. of ash on

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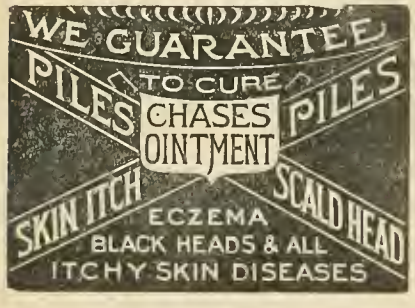

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the dried substance, is the recommendation of Barclay.

CHEMISTRY.

The discovery of the year, if true, is undoubtedly that made by Lord Rayleigh and Professor Ramsay. They allege the existence of a fifth constituent in the atmosphere, obtained by abstracting water, carbon dioxide, oxygen and nitrogen from air. It occurs with nitrogen, but differs from that body by its greater density.

A useful recommendation of Dott is that specific gravities be taken at 20° C. instead of 15° C. A suggestive paper by Edel on "Pharmaceutical Testing," published in our September issue, should be of great value, as the subject is very important. The purity of chloroform has long engaged attention, and Squibb, Schacht, Biltz, and Brown admit that absolute purity can be obtained, no matter what the source may be—acetone, ketone, or alcohol. The new U.S.P. tests are spoken highly of. Arsenic in glycerin has been reported now and again during the past few years, and should be guarded against. Furfuraldehyde is an excellent test for veratrine, according to Wender. Papers on analytical alkaloidal chemistry have been published by Kebler, and also by Wright and Farr. The tendency is to assist accurate determinations of alkaloidal galenical preparations. Guasti has shown that the isonitrite test for acetanilide in phenacetin is valueless. The following test will detect 0.5 per cent. of acetanilide. One gramme is boiled with 15 c.c. of water, cool and filter. Add bromine water to the filtrate, when if acetanilide be present a turbidity will result. Iodate can be easily detected in iodide of potassium, according to Spica, by precipitation with barium chloride. If the precipitation be barium iodate, it will dissolve in hot concentrated hydrochloric acid, and separate on diluting with water. Mabery reports the examination of Canadian sulphur petroleum, which he found to contain 0.98 per cent. of sulphur. Estimation of HCN in *aqua Laurocerasi* may be improved, reports Denigès, by using potassium iodide as indicator in solutions made strongly alkaline with soda or ammonia. Creosote from beech and oak is identical, and contains phenol, cresols, guaiacol, etc. They also contain a sulphur derivative. Becchi's silver reaction for the detection of cotton-seed oil in lard is not trustworthy. Bevan found that exposure of the lard to the air was sufficient to ensure the silver reaction. The iodine absorption remains the best test.

BOTANY.

Useful contributions to botany have been made by Green, who has examined several ferments. Jamieson has discovered apertures at the tip of root hairs. Berthelot and André have traced the formation of CO_2 and absorption of O by leaves after their removal from plants. Dyer has made exhaustive study of the available mineral plant food in soils. Purjewicz showed that decomposition of organic acids is always taking place in plants, but is favored by light and heat. Malic acid is most easily decomposed, then oxalic, and next tartaric.

Bacteriology and microscopy deserve special recognition, as their importance grows daily. In the histology of drugs and examination of bacteria, the microscope is becoming an indispensable instrument of research to the pharmacist. We must content ourselves with drawing attention to the numerous notes we have published on the subject during the year, particularly by Dr. Eccles, Dr. Whelpley, and others. Photography is growing in favor every year, and the space devoted to it monthly is sufficient evidence of its importance.

The depression in trade which has existed throughout this continent has, as a matter of course, had its effect upon the drug market.

The volume of business done during 1894 is reported by wholesalers to be, as near as can be ascertained at the time of writing, about the same as in 1893. Although stock has been taken, it yet remains for the books to be balanced to show the proportion of profits. Prices, on the whole, have not varied much, and have, as a rule, favored the buyer.

Prince Edward Island.

Mr. Fred. C. Davies is advertising all his stock, etc., for sale, and contemplates removing to Florida.

Mr. W. W. Macdonald, druggist, of O'Leary, P.E.I., was married on the 25th December, 1894, to Miss Annie E. Ellis, of Alberton, in St. Peter's Church.

Summerside has another—its fourth—drug store, the proprietors of which are respectively Mr. Manson (lately with Dr. Dodd, of Charlottetown, formerly with Mr. Gourlie, of Summerside), and Mr. MacNeill, who, for some years past, has had charge of the Kensington Drug Store. The firm's name is Manson & MacNeill. The business is being carried on in the eastern half of the store lately occupied by Mr. A. C. Rogers.

The *Maritime Grocer* of December 25, 1894, says: Mr. Charles Silver, of Simson Bros. & Co., who has just returned from Charlottetown, tells us that the window display of W. R. Watson's drug store, of that city, is one of the finest he has ever seen. The arrangement of the different Christmas novelties and perfumes is unique, the background of the same being artistically adorned with limbs of young spruce, forming a contrast which is very pleasing to the eye.

A druggist at Cypress, Man., has been fined $50 and costs on a charge of selling liquor as a beverage.

There is said to be a good opening for a physician at Cartwright, Man. Forty-five families have signed their names to an agreement to pay a doctor $10 each for the first year. The nearest doctor is now from 16 to 20 miles.

Trade Notes.

Ross & Co. have opened a drug store in Vancouver, B.C.

William Geary has opened a drug store in Vancouver, B.C.

J. D. Warren, druggist, Pembroke, Ont., has made an assignment.

The Sugden Pill & Drug Co., Winnipeg, Man., has been incorporated.

Chas. Nelson, druggist, Vancouver, has opened a branch at Chilliwack, B.C.

Harry P. Hyams, Montreal, has registered as the Crescent Chemical Works.

Grant Jessop, druggist, Chilliwack, B.C., has been burned out. Insurance $2,500.

H. E. Calkin has purchased the drug business of R. O. Christie at Springhill, N.S.

Harbottle has opened a new drug store in the Rossin House block, Toronto, Ont.

N. C. Polson & Co., druggists, Kingston, Ont., have sold their business to W. H. Medley.

R. G. McPherson, druggist, New Westminster, B.C., has sold his business to H. Ryal & Co.

W. S. Robinson has sold his drug business on Avenue Road, Toronto, Ont., to R. C. Hueston.

It is reported that McCartney & Co., druggists, Nanaimo, B.C., are about selling their business.

Thomas Johnston, Avenue Road, Toronto, Ont., has sold his drug business to B. D. Turquand.

H. W. Bleasdale, druggist, Fort Macleod, N.W.T., is arranging a settlement at 50 cents on the dollar.

J. W. Colcleugh, druggist, of Mount Forest, Ont., has been elected mayor of that town by acclamation.

The drug stock of George E. Clark, Gravenhurst, Ont., was completely destroyed by fire on Jan. 4th.

G. E. Gibbard has opened a branch drug store on College street, near Clinton street, Toronto. It will be under the management of F. Nichaus.

H. W. Mitchell, who passed his examination at the O.C.P. last month, goes to Winnipeg, Man., to take a position in his father's drug store in that city.

R. Tuthill has disposed of his drug business on Lake street, Chicago, and has purchased the Market Drug Store, Toronto, owned by R. O. Snider & Co.

A. B. Petrie, jr., is a partner in his father's businesses, Guelph, Ont., dating from January 1st. We can only wish him the success that has always attended the old firm.

A. B. Petrie, of Guelph, Ont., the genial president of the Ontario College of Pharmacy, and Miss Petrie, left on Wednesday, January 9th, for a pleasure trip to Australia, to be gone three months. We wish them a pleasant voyage and safe return.

Pharmacy in England.

The Widow's Clause in the Pharmacy Act—Itroysl, for the Preparation of Spts. Ether Nit.—Sanmetto—Chlorobrom in Seasickness—Pure Chloroform—The Chemical Market.

(By Our Own Correspondent.)

The president of the Pharmaceutical Society is always springing new surprises upon his supporters. Some few years ago he went for the curriculum scheme with all his heart and soul, and actually induced the council to embody it in a bill before parliament, but its career was short. Next, he evolved some improved method of conducting the examinations with the assistance of outside professors, which the Council adopted, and now seems sorry for it. For one of the first professors appointed was Professor Green, who holds the chair of Botany in the society's school of pharmacy. This unfortunate selection has raised a small hornet's nest, as it is thought that the unimpeachable fairness of the examinations cannot be maintained if a professor of one school of pharmacy is on the board of examiners, whilst all the rest of the schools throughout the country are unrepresented. Now, Mr. Carteighs has started a crusade against the widow's clause in the Pharmacy Act. By this clause, a chemist's widow is permitted to continue the business if she engages a qualified assistant as manager. For some unexplained reason, except that this beneficent provision for the widow and fatherless is an anomaly, we are called upon to sacrifice this clause, and for what? Apparently to assist in closing a few businesses in the country, where competition is getting so keen. But in this absurd outcry against an institution which has certainly never proved a grievance—rather the reverse—the president forgets that, as the law stands, even if the widow clause were repealed, all that she has to do is to turn the business into a limited liability company, and she can carry on the business just as before. From this it will be seen that any agitation on the subject is farcical, and that no surrender of the widow's privilege would effect any alteration in pharmacy unless the companies' immunity is also broken down.

Itrosyl.—Under this cabalistic word, Messrs. Fletcher, Fletcher & Co. have introduced a concentrated spirit of nitrous ether. Indeed, it is so highly concentrated that they claim 1 part mixed with 19 parts of rectified spirit will instantly produce the pharmacopœial spirit of sweet nitre. From an examination of it, I am inclined to believe that it is a solution of ethyl nitrite in absolute alcohol, with a small quantity of aldehyde. The solution is probably prepared by the double decomposition method from sodium nitrite in a freezing mixture, as recommended some few years ago by Professor Dunstan. It is supplied only in sealed glass capsules holding one fluid ounce, with the idea of preserving the fluid without any loss of gas, one of which is to be broken and mixed with the rectified spirit as required. As one of the bugbears of pharmacy is the preservation of spirit of nitrous ether at its full strength, this method may be of some advantage. The price of the capsules is twenty-four cents each, which makes the preparation somewhat dearer than the ordinary article.

Sanmetto.—This is the latest American candidate for medical favor which has reached this side. It is apparently a fluid extract flavored so as to be rather agreeable, and of a reddish color. It has been suggested that it is an extract of the saw palmetto. Some considerable expense has already been incurred by the proprietors, the Od Chemical Manufacturing Company, by mailing all our registered physicians a free sample, with literature. From the latter I gather it is recommended particularly for cytitis, pyelitis, prostatitis, and pre-senility—whatever that may mean. Apropos of new remedies of this class, I may mention that I had an opportunity of seeing it prescribed the other day by one of our leading West-end physicians. It was for a young woman who, I learned afterwards, was suffering from tuberculosis of the kidney. The prescription was followed in a few days with another calling for Dusart's syrup of the hypophosphites, next a course of Stearn's wine of cod-liver oil, and, finally, Scott's emulsion. Then I lost sight of the patient, but I could not help reflecting on the apparent advantages possessed by our enterprising cousins, who had so effectually captured this physician that nothing in the pharmacopœia, or even manufactured in England, was good enough for him.

Chlorobrom.—This preparation, first suggested by Dr. Charteris, Professor of Materia Medica and Therapeutics at Glasgow University, is being boomed by the proprietors, Messrs. Burgoyne & Co. It is a pleasant mixture of an elixir nature, containing chloralamide and bromide of potassium. Dr. Charteris specially recommended it as a remedy for seasickness, and some remarkable evidence of its success in preventing or abating attacks of this distressing malady has been produced. Messrs. Burgoyne are now pushing the remedy as an ideal sedative and hypnotic. They claim that it can be safely administered even to children, whilst the combination with choralamide prevents the depressing action of the bromide from being asserted. In connection with its success as a remedy for seasickness, it should be borne in mind that Dr. Charteris insists on the passenger taking an anti-bilious pill, or three-grains tabloids of calomel, for two nights previous to embarking. When on board, a dose of chlorobrom, either 4 or 6 drachms, should be taken, and the passenger should retire to his berth and assume the recumbent attitude. In over one hundred cases only one unsuccessful result was obtained, and this was explained as being due to an excessive dose.

Pure Chloroform.—For some time past the purity of chloroform has been a subject of speculation and experiment. Whatever the cause may be, it is an undoubted fact that more deaths from chloroform have occurred in recent years than formerly. Physiologists are inclined to put the onus upon the chloroform manufacturers, and suggest that as chloroform is now prepared from acetone, methylated spirits, etc., impurities are much more probably present than when it was only prepared from pure alcohol. Some such opinion is also held by Squibb, although he admits that pure chloroform is the same thing, no matter what it is made from. Messrs. Macfarlan, of Edinburgh, who are very large makers of this article, have from time to time communicated to the pharmaceutical press their experience in the matter. Whilst advocating more stringent tests to be applied for the detection of impurities, they are perfectly convinced that, with ordinary care, there need be no impurities, but state that the bleaching powder employed is a more prolific source of impurity than acetone, methylated spirits, etc. They have placed upon the market an absolutely pure chloroform for anæsthetic purposes, which extended experience has shown can be safely kept for a year or more without decomposition. Makers of chloroform are naturally rather inclined to saddle anæsthetists with the responsibility of most of the accidents that have happened. They state, with some show of reason, that many a hundred minor operations are now performed under chloroform which used to be performed without anæsthetics, and that this has rendered surgeons careless of the idiosyncrasies and cardiac weakness of patients who are not suitable subjects for chloroform inhalation.

The market at the close of the year is always more quiet, very little business being transacted. Chemicals remain, for the most part, unaltered, and there have been no drug sales since the 15th. Some excitement has been caused among the export drug houses by the county council threatening to summon all who have metric weights and measures on their premises for purposes of trade. As many of the South American indentors require their goods to be supplied by the kilogramme or litre, this is very awkward; and it appears that, as the law stands, it is illegal for chemists here to dispense foreign prescriptions with metric weights. This matter appears all the more ridiculous, inasmuch as the new British Pharmacopœia is to recognize the metric system more fully. Some conjoint action of the Pharmaceutical Society and Chambers of Commerce is spoken about.

December is the most fatal month in the year for asthma.

The number of persons born blind is sixty-five to the million.

Mrs. Shaw, the whistler, says that one of the best cures for indigestion is whistling for about half an hour after eating.

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These are made in Three Sizes—SUITABLE TO MIX 5 lbs., 10 lbs., and 25 lbs.—at $6, $12, and $18 each.

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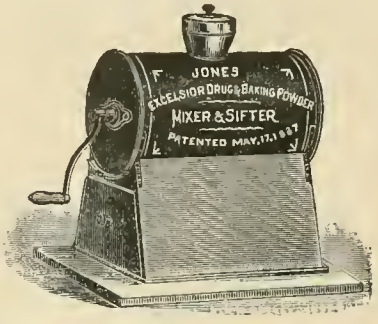

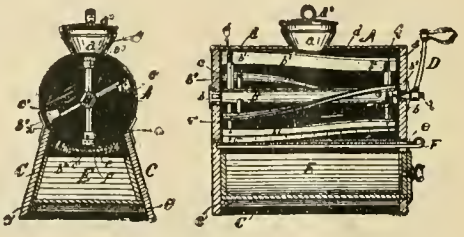

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RUBBER BRUSH RUBS ALL LUMPS OUT OF POWDER BEFORE IT IS SIFTED.

These Machines mix the powders thoroughly, and then force them through sieves of the proper fineness for the intended powders. Two Sieves, 40 and 60 mesh, with each Mixer.

This Mixer and Sifter is handled by the prominent wholesale druggists of the United States, and gives general satisfaction. Amongst those handling them are: Morrison & Plummer, Chicago; Bullock & Crenshaw, and Smith, Kline & Co., Philadelphia; W. H. Scheffelin & Co., and McKesson & Robbins, New York, and others.

The 10 lb. Mixer is specially adapted for the general requirements of the Retail Druggist.

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ANTISEPTIC PERLES

Of Pleasant Taste and Fragrance.

Non-Poisonous and strongly Antiseptic.

These Perles closely resemble the sublimates and carbolic acid in their antiseptic action. A preventive of diphtheric infection.

For the rational cleansing and disinfection of the mouth, teeth, pharynx, and especially of the tonsils, and for immediately removing disagreeable odors emanating from the mouth and nose.

A perfect substitute for mouth and teeth washes and gargles. Radlauer's Antiseptic Perles take special effect where swallowing is difficult in inflammation of the throat and tonsils, catarrh of the gums, periostitis dentalis, stomatitis mercurialis, salivation, angina, and thrush.

A few of the "Perles" placed in the mouth dissolve into a strongly antiseptic fluid of agreeable taste, cleanse the mouth and mucous membrane of the pharynx, and immediately remove the fungi, germs, and putrid substance accumulating about the tonsils, thereby preventing any further injury to the teeth.

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Take 2—4 Perles, let them dissolve slowly in the mouth, and then swallow. Being packed in small and handy tins, Radlauer's Antiseptic Perles can always be carried in the pocket.

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JOHN C. GERRY, Dominion Agent, Toronto.

Drug Clerks' Column.

Felicitatem Adversus Gradus.*

GRUFFS FOR THE DRUG CLERKS OF ONTARIO.

By D. J. Ashbury, Ontario College of Pharmacy, Junior Class of 1894.

I daresay that the majority of the drug clerks of the province are at this present time in an almost similar predicament to my own about six months or a year ago. I was just about then eagerly anticipating the time when I should be liberated from the *bondage* of apprenticeship and could enter upon a more lucrative and enjoyable course of existence, and in the not very distant future become what is the aspiration of all in any way ambitious youths, my own boss (although I am forced to admit the prospects of having such an employer were not at all of an enviable character). Green fields are pleasant far away, and of the pastures of bliss my too vivid imagination had an exceeding abundance. But there are a few things we mortals are in a position to learn as we advance upon life's pathway. And my turn was yet to come, and that at no far distant season.

I had never for a moment thought of associating my apprenticeship life with the interests of our province's College of Pharmacy, because I was content to leave bad enough alone, and to take my medicine of school life as a druggist only can (in capsules) when it should become incumbent upon me to attend the deliberations of the institution of learning which was to attempt to fit me out in the garb of pharmacy. But my apprentice days coming to a fulfilment, and the next consequent step for me being the attending school, I attended this last fall's junior session of our own Ontario college, and I there learned a few lessons which have been of profit to myself, and which I feel may be worth a little to my fellow drug clerks. And so I beg indulgence of them whilst I bring to their notice the product of my observations.

I feel strongly convinced of the circumstance that most of our drug clerks never cast a thought about their connection with our college at Toronto until they are brought into direct contact with it by an attendance upon its course of tuition and training. The clerks never get to feel that they are prospectively as intimately connected with the school as are those who are from year to year attendant upon its sessions. It is absolutely certain that no man can enter the drug business as a business in this Ontario of ours until he has been graduated from the college supposed to train him up in the way he should go in his pharmaceutical life in the province. And so the boy going into the business ought to appreciate fully what is before him and govern himself accordingly. Far too many young fellows squander their time in the store, do nothing toward getting ready for school work, fail to avail themselves of the facilities and influences for study extended them, and go down to Toronto perfect ignoramuses, sufficiently wrapped up in their own powers to harp Æolian music to that providence their ignorance describes as "luck" as that they hope, and even expect, they will pass through examinations and come out as full-fledged druggists, and be able to take their places among the business men of the province as fit representatives of a business into which they have gained access by the skin of their teeth, and very little skin at that. Well, there may be something so striking about these young men as to commend them extraordinarily favorably to their examiners, but I don't believe their hash will prove half so digestible when they come to eat it. It is generally found each May that those who fail on the council examinations are the men who did not think it worth their while to get a little bit prepared for the work of the course before entering upon it. These are the ones who usually get left. Now, the work at school will not be such an extreme burden to him who has prepared himself before and during the course in some measure for it. There is certainly lots of work to get up, but honest application and perseverance can surmount all barriers, and he who earnestly does his best to get up the work will not find the getting of it up such an onerous task after all.

But there are a few things it will not be amiss for each of us to get an insight into ere we attempt to try our skill at the storing our minds with the knowledge of pharmaceutical book lore. And these we might just for a few minutes take a glance at :—

I. A clerk before attending school should train his mind to a system of study.

At the Ontario College of Pharmacy, as at all others, they do not profess to be able or to attempt to *learn* any man the theories of pharmacy; they only *teach*. No person can regulate the mind of another, none can influence his fellow's powers of thought and mental grasp. To assert and exert themselves, each man must look after his own mental character. And I noticed this circumstance very markedly displayed in my recent experience at school. Some fellows could not apply themselves at all to study, could not get their minds into working trim, could not bring their talents to bear upon their required exercises, and, of course, these men could not but lose through this deficiency of power. It is a very pleasant way of looking at matters, I fully realize, this of considering that while in the store as an apprentice a fellow can afford to let studies run and can allow himself to neglect attention to his books altogether; but I also now from experience realize every bit as fully that this way of looking at the situation is a hoodwink and a dangerous snare. A man's mind needs to be prepared for thinking, and, unless it be prepared, all the knowledge of all the sages the world has ever known will never sprout forth into usefulness from this mind, because the soil is no good, has never been cultivated. I believe that if the clerks of Ontario would only get to realize what they are losing by not paying a little attention to study while in the store, they would stir themselves a little bit in this matter. There are lots of little things each clerk can learn before entering school which he would find would save him a lot of trouble on going to school, and which I know would be of great service to those who are to tutor him. Almost any fellow while in the store can get up the *doses* of drugs and preparations of the Pharmacopœia, can study up the ways of preparing official medicaments, can get up the process of determining specific gravity of substances, and can know a little bit about the metric system of weights and measures, and that table in the front of "Maisch's Materia Medica." This is very little to have to study for four years, but if properly gone at will be of profit to him who attempts it. And then in the college announcement will be found a course of study for apprentices, drawn out by the council of the college, which may well be given the serious consideration of the clerks of our province. This table was not made out just for amusement; it was fixed up for your profiting, brother clerk.

II. A clerk needs to form proper habits of going about his work.

There is nothing so disgusting and distasteful to any person of refinement than a man who is slovenly, and who does not know how to correctly and expeditiously go about his business, and the Professor of Pharmacy at the O.C.P. is not a man of vulgar inclinations, not by any means, as many neglectful clerks have found and will yet find out. Any man who is clean and particular himself likes to see the same qualities in others. But there are lots of people in this world of ours who are exceedingly dirty in their methods of work, and who, besides this, never use their common sense to direct them how to go about their business.

Some clerks in their works show this lack of skill to a very, very marked extent. In making pills they too often make more pill *mess* than pill *mass*, a terrible slabber all over the whole of their utensils; in making powders, the powders are more often spread upon the dispensing counter than upon the necessary papers. These clerks more often dispense with the powders than they dispense them. And in their other operations they are equally unskilled. They never think for a minute what ought to be done under a given circumstance, and how this ought to be done. They never use their thinking caps at all.

Now, no school professes to be able to make a man of any fellow. They don't, at school, supply a man with character, only with aids to the framing of this.

These two thoughts came forcibly to me during my connection with our school

*Steps towards success.

at Toronto during this past fall, and I have jotted them down rather hurriedly and uninterestingly for the enlightenment and guidance of those with whom my life is closely knit in the fellowship of occupation.

Examination Questions—Ontario College of Pharmacy.

JUNIOR EXAMINATIONS, DECEMBER, 1894.

PHARMACY.

Examiner:—CHAS. F. HEEBNER, Ph.G., Phm.B. (Tor.).

Time allowed, three hours.

1. HYDRARGYRI IODIDUM RUBRUM. Give (*a*) chemical name and formula; (*b*) method of preparation in detail, stating reasons IN FULL for each step from beginning to end; (*c*) equation showing chemical change which takes place; (*d*) means of determining the quantities of the necessary ingredients to furnish the greatest possible yield of salt.

2. What volume of *Æther Purus* will be required to counterpoise four fluid ounces of *Aciaum Nitricum?* What will 0.5 liter of *Rectified Spirit* weigh, and (*c*) what weight of absolute alchohol will it represent?

3. (*a*) Differentiate between *Water of Crystallization* and *Water of Decrepitation.* (*b*) Explain why granulation is a more efficient means of purifying certain chemical salts than re-crystallization.

4. How many *Avoirdupois pounds* are represented by the sum of 425 dekagrams, 8½ kilo's, 3¾ myriagrams, 825 decigrams, 460 milligrams, and 18 grams.

5. (*a*) Describe and illustrate a method of upward-filtration, stating its advantages over the usual method, and the objects gained. What medium may be used in the filtration of (*b*) Phosphoric Acid, (*c*) Solution of Soda?

6. Having in stock 50 grams of powdered opium containing 8 p.c. of morphine, in what proportions can I most economically mix with it powders assaying 9, 12, and 15 p.c., to yield a product that will assay 10 per cent. morphine.

7. (*a*) Mention the initial unit of the Metric System; (*b*) explain the derivation of the unit of weight from the lineal unit; (*c*) show the relation existing between the units of capacity and length. Give the equivalents of the following in the customary weights and measures: (*c*) Meter, (*d*) Gram, (*e*) Liter. Give approximate metrical equivalents for: (*f*) grain, (*g*) drachm, (*h*) fluid ounce, (*i*) inch.

8. (*a*) Define and give examples of Solution by Intervention; (*b*) Define Supersaturated Solution; (*c*) a solution of Potassic Chlorate, saturated at 15° C., weighs 41¼ ozs.; what amount of salt is there in solution; (*d*) and what is the percentage strength of the solution?

9. (*a*) Define specific gravity; (*b*) what is the unit for solids and liquids; (*c*) state method of using the loaded cylinder in specific gravity determinations. Give sp. gr. and percentage strength of (*a*) Spiritus Tenuior, (*b*) Æther, (*c*) Chloroformum, (*d*) Liquor Ammoniæ, (*e*) Liquor Ammoniæ Fortior.

10. A piece of wax weighs 14.25 grams; a block of brass (sufficiently large to immerse the wax in water) weighs in distilled water, 15° C.—30 grams; wax and brass together weigh in distilled water, 15° C.—29.25 grams; what is the specific gravity of the wax?

11. State how each of the following are affected by exposure in uncorked bottles: (*a*) *Plumbi Acetus*, (*b*) *Zinci Sulphas*, (*c*) *Calcii Chloridi*, (*d*) *Liquor Plumbi Subacetatis.*

12. Give test to distinguish between a solution of plumbic acetate and Goulard's extract.

CHEMISTRY AND PHYSICS.

Examiner:—A. Y. SCOTT, B.A., M.D., C.M.

Time allowed, two hours.

1. State the Law of Definite Proportion and illustrate your answer.

2. Give the history, occurrences, preparation, and properties of Ammonia.

3. How much oxygen can be obtained from 200 grammes of Potassium Chlorate (*a*) at normal temperature and pressure, (*b*) at 15° C. and 740 mm. pressure?

4. What are the impurities in ordinary commercial Hydrochloric and Sulphuric Acids? What are the sources of these impurities? How would the Acids be purified?

5. Give an account of the occurrence, preparation, chemical and physical properties of Sulphur Dioxide. How much Sulphur would it require to unite with the Oxygen in 1,000 liters of air at 0° and 760 mm.?

6. Write equations illustrating action of:

(*a*) Potassium Hydrate on Ammonium Chloride.
(*b*) Chlorine on Hydrogen Sulphide.
(*c*) Barium Chloride on a Sulphate.
(*d*) Sulphur Dioxide, Oxygen, Hydrogen Nitrate and Water.

7. State Boyle's Law. How would it be proved?

PHARMACAL LABORATORY.

Examiner:—CHAS. F. HEEBNER, Ph.G., Phm.B. (Tor.).

Time allowed, two and a half hours.

1. Determine the extractive matter in the liquid preparation handed you, and report according to the following forms:

(*a*) Quantity of liquid taken.
(*b*) Amount (actual) of extractive matter found.
(*c*) Percentage of extractive matter found.
(*d*) Write out process used in determining extractive in detail, and exhibit all figures used.

2. Determine the specific gravity of the solid substance, and submit a report of your results in accordance with the subjoined form:

(*a*) Substance marked.
(*b*) Weight of substance taken.
(*c*) Weight of an equal volume of water.
(*d*) Specific gravity of substance.

Exhibit all figures used in the above determination.

N.B.—Neatness of work, order in arrangement, and cleanliness of working desk and outfit, will enter as important factors in your ratings.

LATIN, ETC., THERAPEUTICS AND POSOLOGY.

Examiner:—J. T. FOTHERINGHAM, B.A., M.B.

Time allowed, two hours.

1. Decline the nouns:—*Bromidum*, *Congius*, *Liquor*, *Pilula*, and *Spiritus*, naming the cases.

2. Give case and syntax of the italicized words:—Recipe *Tincturæ Asafœtidæ drachmam unam* quartâ quâque *horâ.*

3. Analyze this classical prescription into its component parts, giving each part its name. Translate directions:

℞ Pulv. Jalapæ, gr. xx.
Pot. Tart. Ac., ʒj.
Syr. Zingib., ʒij.
Aq. Menth. Pip., ʒj ss.
Ft. haust. stat. sumend.

4. Apply Young's rule to the above prescription to reduce it to suit a child of four years of age.

5. Give maximum doses of the following preparations:—Pulv. Cretæ Aromat. c. Opio; Pil. Hydrarg.; Extr. Stramonii; Extr. Casc. Sagr. Fl.; Extr. Bellad. Alcohol.; Extr. Aloes Barb.; Vin. Antimon.; Tr. Cannab. Ind.; Tr. Capsici; Tr. Valer. Ammon.

6. Enumerate the ordinary methods of administration of drugs, and distinguish between terms Local Effect and Systemic Effect, giving example of each.

7. Define the following terms: Absorption, Digestion, Ventricular Systole, Plasma, and Metabolism.

8. Describe, very shortly, the Blood.

9. Define the following terms, with examples: Tonics, Anæsthetics, Hypnotics, Stimulants, Narcotics.

BOTANY.

Examiner:—A. Y. SCOTT, B.A., M.D., C.M.

Time allowed, two hours.

1. Describe fully specimens marked A and B. Under what would each be classed, and why?

What is meant by Phyllotaxy? Name the different kinds of buds found on the branch shown, and what is their arrangement?

3. Describe the various forms of Inflorescence. Under which would you class the flower shown, and why? Give as minute a description as possible of the parts of the same flower seen without dissection.

4. Trace the formation of the fruit and seed from the flower. Describe the specimen of fruit as to class, loculi, placentation, epicarp, etc., also the seed it contains.

5. Describe Parenchymatous Tissue.

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At Mill Prices

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LITTLE'S PATENT FLUID

NON-POISONOUS

SHEEP DIP AND CATTLE WASH.

For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

☞ 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at **\$1.00**. Is wanted by every Farmer and Breeder in the Dominion.

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Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.

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Little's Soluble Phenyle

DEODORISER & ANTISEPTIC

NEW DISINFECTANT

FOR UNIVERSAL USE

CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c Bottles, and \$1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

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Practical Chemistry.

Examiner:—Graham Chambers, B.A., M.B.

Time allowed, two and a half hours.

1. Detect Acid in substance marked "A"

2. Detect Metal in Substance marked "B."

3. Detect Acid in substance marked "C."

4. Detect Acid in substance marked "D."

5. Blow a bulb on end of straight glass tube.

6. Write equations illustrating the action of heat upon:

(*a*) Ammonium Nitrate.
(*b*) Hydrogen Peroxide.

7. What compounds are formed by the action of hot concentrated Sulphuric Acid upon the following subtances:

(*a*) Sulphur.
(*b*) Hydriodic Acid.
(*c*) Oxalic Acid.
(*d*) Hydrogen.

8. Write equations, showing the action of Chlorine on:

(*a*) Hydrogen Sulphide.
(*b*) Hot Potassium Hydrate.
(*c*) Potassium Bromide.

9. How would you detect the presence of a Bromide in an Iodide?

Senior Examinations, December, 1894.

Dispensing.

Examiner:—O. F. Botsford.

Time allowed, three hours.

Miss Gracie Copland.

1. R.—
Magnesii Sulph.... ..... ℥iss.
Sodii Bicarb..... ..... ℥iii.
Tinct. Card. Co..... ℥ii.
Aquæ ....ad. ℥vi.
Misce et fiat mistura.
Sig.: Cochleare mag: ex cyatho aq. ter in die ante cibos.

J. H. Hewitt, Esq.

2. R.—
Sodii Hyposulphitis..... ..... ℥iv.
Acid. Sulph Dil ..... ℥i.
Aq. Destillatæ..... .....ad. ℥iv.
Misce, fiat Lotio.
Sig.: Adhibendum caputi et carpo semel die.

Mrs. Featherstonhaugh.

3 R.—
Plumbi Acetatis.. ..... gr. x.
Acidi Tannici ..... gr. v.
Ext. Belladonnæ ..... gr. iii.
Olei Theobromæ..... q.s. ℥ii.
Fiat Suppositorium, mitte tales.... iii.
Sig.: Uno utare quaque nocte more dicto.

Sydney D. Durham.

4. R.—
Sulphuris Sublimati . ..... gr. xxxvi.
Sodii Bicarb..... ... . gr. xxiv.
Misce et fiat massa et div. in pil. xii.
Sig.: Duo ante jentaculum omne mane.

R. Jolliffe, Esq.

5. R.—
Acetanilidi..... ... gr. xxiv.
Quininæ Sulph ..... gr. xvi.
Misce et fiat massa et in capsulas octo divide.
Sig.: Unam quaque hora donec dolar in capute mitescat.

Prescriptions.

Examiner:—W. Murchison.

Time allowed, two hours.

1. Name the three cases, and give a list of ten imperative verbs most frequently used in prescription writing.

2. Give the equivalent, expressed in grains, scruples, half-drachms, and drachms (using symbols), of the Metric weights from one to ten grams.

3. Give two or three simple rules for expressing quantity by weight of the Apothecaries system in Metric terms.

4. Give full Latin word and meaning of the following abbreviations: Ad 2 vic.: De d. in d.: Ejusd.: F.L.A.,: Gr. vj. pond.: O.O.O.: P.C.: P.M.: P. rat. æt.: Sesunc.: St.: Temp. dext.: Tra.: Pocul.: Feb. dur.: Decub.: T.O C.: S.V.: M.P.

4. Give the maximum doses of the following substances: Amyl Nitris, Cocaina, Cantharis, Cerii Oxalas, Codeina, Cupri Sulphas, Elaterinum, Ferri Arsenias, Hydrargyri Perchloridum and Oleum Crotonis.

6. Convert fully into English:
R.—
Scillæ Radicis recens exsiccatæ et contritæ, drachmam,
Zingiberis Radicis contritæ,
Saponis duri, singulorum, drachmas tres,
Ammoniaci contriti, drachmas duas;
Misce inter se pulveres; deinde cum Sapone contunde, et adjice syrupi simplicis quantum satis sit, ut idonea fiat crassitudo.

7 to 10. Oral.

Botany.

Examiner:—Chas. R. Sneath.

Time allowed, two hours.

1. What do you understand by the following terms, viz.: Cambium layer, primordial utricle, primary meristem, leaf cycle, adventitious roots, plumule, parietal placentation.

2. (*a*) What are the Pteridophyta?
(*b*) What classes are included in the series?
(*c*) Describe the general plan of reproduction.

3. Explain the various forms of Venation, referring them to classes of plants in which found. Explain the example given.

4. (*a*) Name and describe the parts of a typical flower.
(*b*) Describe fully the functions of the gynœcium.
(*c*) Name and explain its modifications.

5. Chlorophyll—
Explain fully its uses and properties.

6. What are the functions of the leaf? Explain its minute structure.

7, 8, 9, and 10. Oral.

Pharmacy.

Examiner:—F. T. Harrison.

Time allowed, two hours.

1. A drug contains:— Chlorophyll, Fixed Oil, Gum, Sugar, Tannin Albuminoids, Starch and an alkaloid. I extract it with the following solvents successively:—1st, Ether; 2nd, Rectified Spirits; 3rd, Cold Water; 4th, Hot Water. In which of the solvents would you expect to find the various constituents?

2. What is an Infusion? Why is cold water used in preparing infusions of Calumba and Quassia, and why is Sulphuric Acid used in Acid Infusion of Cinchona? State strength of each of the above named infusions.

3. What is a Crystal, and what qualities of crystals are expressed by the following terms:—Anhydrous, Efflorescent, Deliquescent?

4. What ingredients are used in preparing Yellow Mercurial Lotion and Black Mercurial Lotion, and what Salts do the finished preparations contain?

5. Give practical notes on the preparation and preservation of three of the following:—Lead Plaster, Ointment of Nitrate of Mercury, Solution of Subacetate of Lead, Compound Mixture of Iron, Strong Solution of Acetate of Ammonium.

6. Name the ingredients in the following:—Simple Ointment, Compound Tincture of Camphor, Wine of Ipecacuanha, Liniment of Belladonna, Compound Pill of Soap, Compound Powder of Kino.

7. Add together 14 Millegrammes, 300 Kilogrammes, 80 Grammes, 1240 Centigrammes, and give the equivalent of the total in grains.

8. (*a*) How is Spirit of Nitrous Ether prepared, and (*b*) How is its strength estimated?

9 and 10. Oral, and recognition of specimens.

Materia Medica.

Examiner:—J. Tolbert Pepper.

Time allowed, two hours.

1. Point out the difference in the physical characteristics of the following:—
Conium Fruit and Caraway Seeds.
Short Buchu and Uva Ursi Leaves.
Aconite Root and American Hellebore Root.

2. Castor Oil—
(*a*) Give Latin name of the plant from which it is obtained.
(*b*) In what country does the plant grow?
(*c*) From what part of the plant is the oil obtained, and how?
(*d*) What is the dose, and how may it be best administered?
(*e*) What are its medicinal properties?
(*f*) Name some other purposes for which it is used.

3. Rubber—
(*a*) Give English and Latin names of plants from which this is obtained.
(*b*) From what country does the largest supply come?
(*c*) How is it collected?
(*d*) In what condition is it when collected?
(*e*) In what condition is it when sent to the manufacturer?
(*f*) How is this change effected?
(*g*) In your estimation, do goods manu-

factured from rubber form an important part of a druggist's stock?

(*h*) Give a list of goods, manufactured from rubber, which are usually kept in a modern pharmacy.

4. What part or parts of the following plants are used in medicine:—

Myristica Officinalis.

Convolvulus Scammonia.

Hæmatoxylum Campeachianum.

Quercus Infectoria.

Caryophyllus Aromaticus.

5. Licorice—

(*a*) Give Latin name of plant from which it is obtained.

(*b*) From what country is it obtained?

(*c*) What part of the plant is used?

(*d*) Give medicinal properties.

(*e*) Give names of several brands or makes that are usually kept in a drug store.

(*f*) Give common names for a very popular and much used preparation of Powdered Licorice.

6. What is the most common adulterant of Pulvis Rhei, and how would you detect it with the microscope?

7. Wild Cherry Bark—

(*a*) Give the Latin name.

(*b*) To what country is it indigenous?

(*c*) What preparations of it are most frequently used?

(*d*) What acid does it contain?

(*e*) Does this acid pre-exist in the bark?

8, 9 10. Oral examination, and recognition of specimens.

CHEMISTRY.

Examiner:—B. JACKES.

Time allowed, two hours.

1. Draw a diagram and illustrate by equations the manufacture of Sulphurous Acid by two different methods.

2. Explain the manufacture of Hydrocyanic Acid and show how it is reduced to Scheeles' and B.P. strength.

3. Give an account of the chemistry of HNO_3, considered (*a*) as an acid; (*b*) as an oxidizing agent; (*c*) give proof that it contains H.

4. Write the formula and names of the compounds containing the elements (*a*) (H and O), (*b*) (H and CL), (*c*) (O and C).

5. Give briefly a method of preparing small quantities of (*a*) Metallic Arsenic, (*b*) Alumina ($AL_2 O_3$), (*c*) Sulphide of Iron.

6. How may (*a*) Zinc be distinguished from Alumina, (*b*) Lead from Silver, (*c*) Cadmium from Arsenic.

7. Trace the different changes which take place in the manufacture of Alcohol, and show what relation it bears to Acetic Acid.

8. Give the original source, preparation, and purification of Potassium Carbonate.

9 and 10. Oral, and recognition of samples.

Ontario College of Pharmacy.

The following are the results of the junior examinations at the Ontario College of Pharmacy, arranged in order of merit:

FIRST-CLASS HONORS.

W. McDowell, H. Eagleson, J. C. Morrison, D. J. McF. Ashbury, J. M. Fisher, J. P. Hennessey, John Woodward, R. Henderson, John Murray and G. E. Thatcher, equal; J. C. Grosch, Winfield Faulds, N. H. Brown, J. S. Brown, J. G. Blain, F. W. Day.

SECOND CLASS HONORS.

E. Bryson, O. Dowler, J. R. Y. Broughton, J. A. Anderson and A. W. Urquhart, equal; Wilson Mitchell, A. F. Gledhill, B. P. St. John, Geo. A. Ionson, C. H. Amys, A. C. Rorabeck, A. E. Marett, F. W. Sills, F. T. McMaster and Johnson Lucas, equal; Harry Taylor, W. E. Bauer, H. A. Rowland, S. J. Mackey and G. F. Campbell, equal; E. T. Jones, Norval Smith and F. Studholme, equal; N. Samuelson, J. A. Graham and S. C. Lamb, equal; W. J. Bauld, A. E. Cox, J. Watson, Charles T. Laird, E. A. Walters, W. J. Kirkland and Colin Campbell, equal; W. M. Wright, A. T. Brown, Geo. J. Hunt and W. W. Turner, equal.

PASS LIST.

Alphabetical — W. H. Andrews, W. Appelbe, D. Ballingal, A. W. Butchlen, H. R. Carter, J. M. Cavanagh, A. Chambers, H. W. Chambers, Harry Cowan, A. Cundle, J. S. Fraleigh, Paul M. Gordon, Tim. Hatton, Chas. A. Hillis, Major Kelly, Will H. Lee, J. W. Little, E. E. Miller, R. H. McNally, O. A. McNichol, W. B. Nethery, W. H. Pearson, G. A. Ramsden, H. A. Raney, H. G. Radcliffe, Leonidas Rattey, A. W. Roberts, B. J. Rolston, G. A. Rowe, H. N. Roy, C. E. Swaisland, J. F. Taylor, Lawson Wynn.

Granted ægrotat with pass standing — Alex. McDougall, George Timline.

STARRED IN PASS SUBJECTS ONLY.

Materia medica and pharmacy—John J. Doherty.

Pharmacy and chemistry—E. B. Miller.

Chemistry—A. A. Morrow.

Materia medica, pharmacy, chemistry—W. H. Snyder.

Materia medica—J. G. Keogh.

Materia medica, botany, chemistry—Harry U. Tobey.

HIGHEST IN SUBJECTS.

Pharmacy, including practical — H. Eagleson, W. McDowell and John Murray, equal; R. Henderson, John Woodward and J. N. Fisher, equal.

Latin, posology, etc.—W. McDowell, Winfield Faulds, H. Eagleson, R. Henderson and Wilson Mitchell, equal.

Botany—H. Eagleson, W. McDowell, and J. C. Morrison.

Chemistry—J. C. Morrison, W. McDowell, J. P. Hennessey, J. N. Fisher, and D. J. McF. Ashbury.

Practical chemistry—N. E. Brown, F. W. Day, O. Dowler, H. Eagleson, J. P. Hennessey, Wilson Mitchell, W. McDowell and George F. Thatcher, equal.

The senior session begins on January 8, 1895.

COUNCIL EXAM.—DEC., '94.

Pass List—Allen, T. S., Barnes, T. T., Barnhart, F. C., Barrie H. G., Booth, J. H., Cruttenden, Thomas, Davis, Geo. H., Dunn, S. L., Hill, Reuben, Mitchell, H. W., Ross, A. H., Srigley, J., Jackson, Sydney, Johnston, John J., McKinnon, D., Shurie, Jas., Ward, R. C., Waugh, J. C., and Johnston, A. R.

Passed in subjects — Four subjects, Brown, T. A., and Carter, W. C. Five subjects, Johnston, J. A. One subject, Thompson, J. C., and Bunting, G. B.

"Observation Sheets" of the American Pharmaceutical Association.

The following has been sent out by Mr. Alfred R. L. Dohme, chairman of the section on scientific papers of the American Pharmaceutical Association:—

TO EVERY PHARMACIST IN THIS GREAT LAND.—*Greeting:* In accordance with the resolution adopted by the American Pharmaceutical Association at its forty-second annual meeting at Asheville, in September, 1894, it becomes my pleasant duty to place before the pharmacists of this country the "observation sheet" given below. The purpose of this paper (as was ably pointed out in his address by the ex-president of the association, Mr. E. L. Patch, who formulated it) is to collect and tabulate a series of data upon incompatibilities, difficult problems, and experiences of all kinds in compounding and dispensing drugs, and how they were solved; upon the relative salability and therapeutic value of the various new remedies; upon the condition of the various products purchased by the pharmacist, his experience with formulas of the Pharmacopœia, National Formulary, etc., as well as errors or difficulties of any kind found in the Pharmacopœia, dispensatories, or elsewhere.

When you consider that as many as 5,000 able and conscientious pharmacists will receive a copy of this observation sheet, and that the committee will thus secure the experience, reports, etc., of that number of men, you will readily recognize the great value that will accrue to every pharmacist. These reports will be tabulated, and in all probability published, and the experiences, suggestions, ideas, and much of the knowledge of this large number of men will thus be made public, and all will derive benefit.

The number of suggestions for experiment, reflection, and original research that will thus be brought to light, and the number of knotty problems to pharmacists solved, will be very great. The report upon the salability of preparations and new remedies all over the land, and upon the quality of many U.S. Pharmacopœia and other preparations, will be of great service and interest to every pharmacist. The whole idea of the sheet is so new and so rich in valuable possibilities and usefulness that no just estimate of it can be given yet, save to say that it will prove of immense value to us all. One

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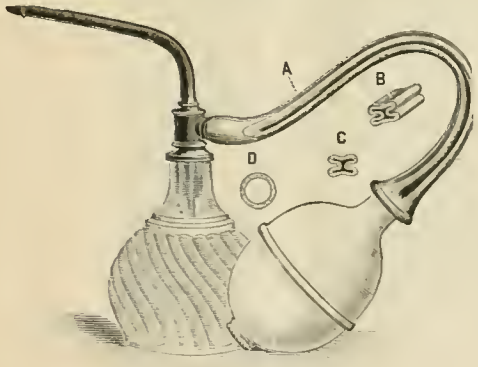

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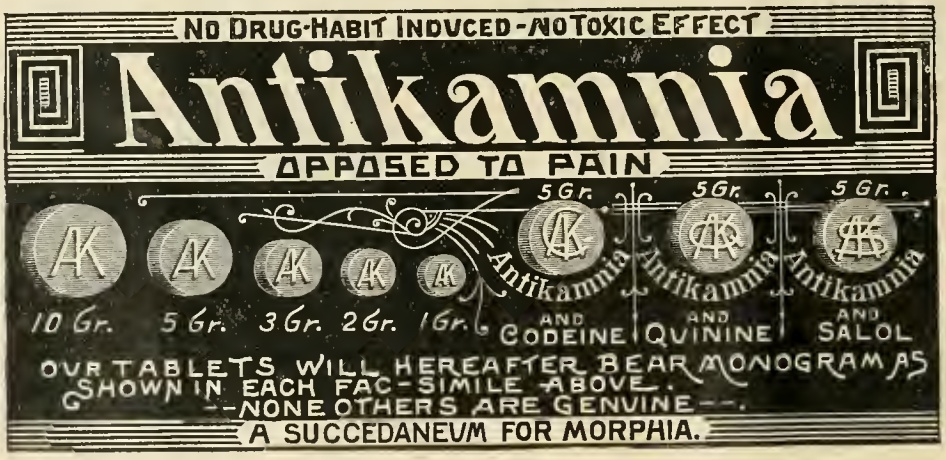

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thing is essential to make it thus valuable and useful, and that is that you, with every pharmacist who receives a copy, should take it up in the spirit in which it was conceived. Fill it up, and more, if possible, with your own personal experiences and ideas, and be convinced that you are one of a large number who are working for the common good, and the advancement of our calling—the science of pharmacy.

Do not cast it aside, but begin at once to jot down such information as it seeks, and continue to do this until any time convenient before the end of June, 1895. Then send it to the undersigned, who will place the information and data which it embodies in the proper columns of his tabulated report, and, when completed, report it to the association, which will, no doubt, so dispose of it that all who have helped to produce it will receive a copy. The undersigned will gladly send a supply of "observation sheets" to all those who desire to join in this grand piece of work, if they will be kind enough to inform him to that effect in writing.

Hoping that you will join us heartily in this good work, and that I will hear from you in due season, I remain, dear sir,

Yours very respectfully,

ALFRED R. L. DOHME,
Chairman Section on Scientific Papers.
303 PRATT ST., BALTIMORE, MD.

Below will be found a transcript of the points in which observations are to be made and jotted down on these "observation sheets":—

THE PRESCRIPTION.—(1) A prescription received calling for therapeutic incompatibles (medicaments opposed to each other in action). (2) A prescription received calling for chemical incompatibles. (A precipitate, *a*; change of color, *b*; effervescence, *c*; caused by chemical action.) (3) Physical incompatibles. (A precipitate due to change in character of solvent, *a*; due to a separation, *b*.) (4) A difficult pill mass. (5) An unsatisfactory ointment. (6) An excessive dose. (7) Dangerous abbreviation. (8) Peculiar composition. Copy of ℞ attached. How the trouble was treated, and result.

THE STORE.—(1) New remedies called for and times employed. (2) Obsolete, unmarketable, or peculiar products called for.

THE LABORATORY.—Experienced difficulty in securing satisfactory products in using U.S.P. (*a*), Nat. Form. (*b*), published in (name of drug journal or other work of reference) (*c*), formula for the following:—(1) Fluid extract of..... (2) Tincture of..... (3) Syrup of..... (4) Elixir of..... (5) Plaster of..... (6) Ointment of..... (7) Extract of..... (8) Chemical product. (9) Character of trouble and how remedied. (10) Noticed the following errors in the U. S. P. (*a*), Dispensatory (*b*), description of (name of article or product). (11) Had the following difficulty in applying the U. S. P. test for (name of article or product). (12) Found the following product had become unsalable from having changed as stated (name article or product). Had been in stock for (time), and was stored (place or situation as concerns temperature, moisture, etc.).

Eau de Cologne Tipplers.

Whether eau de Cologne is, or is not, used to any great extent in this country as a cordial, or as an intoxicant, is probably known only to ladies' maids. If a few thousands of these could be interviewed, some approach to the truth might be made; more probably not. But according to the *St. James' Budget*, which gleans its knowledge from some articles which have been recently published in the *Kolnische Zeitung*, the consumption of the perfume in some foreign countries as a drink is considerable. It is stated that lax Moslems affect to regard it as something which does not rank as wine or spirit. No strict Mohammedan would admit hair-splitting of this kind; but there are Mohammedans who are not strict, and these not only drink it themselves, but allow large quantities of it to be introduced into the harem. This accounts for its enormous consumption in North Africa and Asia. It is said to produce a state of intoxication, more complete than can be caused by an equal quantity of any other spirit, for, besides being strong, it is loaded with various ethers. King Juru, of Rio Nunez, excused himself for stealing and drinking Consul Vohsen's eau de Cologne in 1879 by saying, "He very good for drunk," and the Hottentots to this day declare with regard to it that nothing else makes a man really and truly intoxicated. The writer in the *Cologne Gazette* states that the best Cologne water has the worst taste, and that the cheaper varieties—and there are some very cheap sorts made in Germany for export to the East, etc.—are the least unpleasant to drink. The great Cologne makers, upon being appealed to, have expressed doubts whether their wares can be much used in this way. "Jülich platz, No. 4," writes that the strength of his eau de Cologne, containing 90 per cent. of alcohol, would prevent it from being drunk "neat," and that the admixture of water renders it so milky and oily on the surface that he does not believe it would be palatable to any one. But this manufacturer forgets that people do drink absinthe and mastic, which, mixed with water, develop similar phenomena. As for the little eau de Cologne makers, some of them certainly study to produce potable rather than merely pleasant-smelling distillations, and few of them can be ignorant that their wares are extensively used for drinking.

Dr. Stuhlmann, in his account of Emin Pasha's country, mentions that many a Central African Mohammedan drinks his eau de Cologne and water as regularly as the Englishman drinks his whiskey, and describes as a particularly favorite beverage a mixture of eau de Cologne with sugar and water. Dr. Baumann, the discoverer of the sources of the Nile, says that the Arabs not only mix eau de Cologne with their drinking water, but also use it in their cooking; and that it is largely drunk by the Soudanese soldiers in the German service. Consul Siemsen, writing from Macassar, tells of a native rajah who greatly appreciated a cocktail composed of eau de Cologne and orange bitters. One of the numerous Farinas admits that, to his knowledge, the Indian Mohammedans and their ladies drink enormous quantities of Cologne water, and points out as a significant fact that native dealers, when desirous of forming an opinion of a sample, invariably taste and do not smell. And it is notorious that another Cologne firm some years ago flooded the Bombay market with a professedly potable eau de Cologne flavored with sugar and Kümmel. The stuff failed to sell, partly because it was too expensive, but chiefly because, owing to the admixture, it was too weak. The native dealer has no faith in an eau de Cologne a mouthful of which does not cause the taster actual pain. In Paraguay it is loved by the women. In the Moluccas it will purchase almost anything, though it does not seem to be established that the women there drink it. It is only certain that their favorite drinking vessel is an eau de Cologne bottle. In the Kilima-Njaro district of Africa both the king, Mandara, and his prime minister, Mareale, drink it habitually. Count Joachim Pfeil noticed the prevalence of the habit in Griqualand East as early as the seventies; and in Southwest Africa, at this day, cheap sorts of eau de Cologne are drunk by the natives in preference to all else. In Zanzibar native doctors prescribe eau de Cologne as a medicine, and have thus introduced it as a dissipation. It is now taxed there as spirits, and its sale is proportionately restricted; but it used, until recently, to enter duty free, and was actually cheaper than gin or brandy. It is drank in Greenland.—*Chemist and Druggist.*

A New Saccharine Patent.

A new method of preparing saccharine has just been patented by the Basler Chemische Fabrick. The process consists in the transformation of thiosalicylic acid into thiosalicylic chloride, and this into the corresponding acid amide. This latter body is then oxidized by means of potassium permanganate, or other oxidizing agents. The details are as follows: 21 kilos of PCl_5 and 15.3 kilos of thiosalicylic acid are mixed quite dry. The resulting body is a fluid, and HCl is given off. After getting rid of the HCl and $POCl_3$, the thiosalicylic chloride is crystallized and suspended in water, heated, and treated with potassium permanganate. The saccharine is separated with great ease.—(*Moniteur Scientifique*) —*British and Colonial Druggist.*

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

JANUARY 15TH, 1895.

Volume Seven.

With this issue the CANADIAN DRUGGIST enters on its seventh volume, and, at the same time, makes an important step in the removal of the office to Toronto. In 1889 the publisher issued the initial number, launching out into the sea of journalism without experience in the inner working of the printer's "sanctum," or in the many difficulties which a combined editorship and general management entailed, but with the determination to leave nothing undone to make the undertaking a success, and endeavoring to steer clear of the shoals and quicksands upon which many a venture has been wrecked, and so to guide the ways of the vessel, and to properly equip her, as to make her not only the pride of the owner, but a source of gratification and profit to the ports of entry into which she would steer—and these, we might mention, are in the whole length and breadth of this vast Dominion.

Our patrons, the druggists of this "Canada of ours," have nobly and liberally aided us in our efforts, have applauded our steady progress, and in many ways have given token of the appreciation felt in having a representative journal, akin to their feelings, and imbued with the desire, above all things, to assist in every legitimate and honorable way the interests of the retail drug trade.

While not making any rash promises for the future, it is our intention not only to maintain the enviable character given this publication as a Trade Paper, but, from time to time, to enhance its value not only as a reliable medium of information on matters of pharmaceutical happenings within our own borders, but giving the pith of pharmaceutical literature, culled from the columns of many of our able *confrères*, together with contributed articles from the pens of practical and skilled pharmacists in this and other countries.

To our readers we return thanks for their liberal support and encouragement, and also to our advertisers, who have contributed so largely towards our success.

To one and all we wish

A HAPPY AND PROSPEROUS NEW YEAR.

The New Year.

With the opening of the new year, we extend to each of our readers, our contributors, and our supporters, our best wishes for a happy and prosperous new year. The advent of the new always marks the limit of the old, and, while opening to us the hopes and opportunities of a new period, it closes behind us a time in which former hopes were realized or frustrated, and opportunities lost or made good use of. We all naturally long for prosperity. In our varied ways we strive for it, and use to the fullest the natural gifts we possess and the advantages we can secure. The limit of our field is, in many cases, the limit of the results we can attain. The character of the pursuit in which we are engaged does not afford us very great scope for commercial enterprise ; yet for the amount of capital we require to invest, it is certain to yield us a greater return than could be derived from an equal amount invested in any other way. It is true that but few can ever hope to become wealthy, if their wealth is to be derived from the retail trade ; yet it is equally true that to its diligent and painstaking votaries the drug business affords a happy medium, if the word happy is appropriate. Its pursuit is eminently respectable, and all that is required to make it satisfactory and endurable is contentment with what we have, and frugality deserving of better reward, with a determination to do still better, if possible. The year which has just ended has been as trying in many respects as could well be thought possible ; and as we have all survived it, and are yet hopeful of the future developing to our advantage, it cannot be amiss for us to express hopes which we all feel an interest in, and which, if fulfilled, will make the new year to us, at least, a much better one than the old.

Druggists and Physicians.

In an editorial in a late number of the *Ontario Medical Journal* an onslaught is made on druggists under the supposition that they are responsible for the sale of proprietary medicines. The statement of the case and the arguments used are so weak that it might be allowed to pass without criticism, but the frequency with which articles of a similar kind, with the same end in view, appear in medical journals of late makes it advisable that some notice should be taken of them in the pharmaceutical press. The fact that the country is being flooded with physicians, many of whom barely eke out a living, is no doubt the reason for much of the outburst of feeling which is exhibited. Pining for a professional life, young men, encouraged by the fact that in former days practitioners made, in many cases, handsome competences out of their profession, and trusting in the "close combine" which exists to realize all their expectations, they enter on a life calling for which many of them are unfitted, and, as the article referred to says, "settle down and be ready for any emergency," trusting to the people to support them, and, in fact, demanding a support, and resisting any supposed invasion of their rights.

The article says, "When druggists will undertake to manufacture and compound medicines to cure diseases, and make a trade of them to everybody, we think they are going beyond their duty, and invading the rights of every physician now devoting his time to the practice of medicine."

Who, we ask, is the proper person to "manufacture and compound medicines" if not the druggist? The law says he is, and licenses him to do so ; then by what right or on what grounds can the physician object? How are they "invading the rights of every physician"? What law, either of custom or on the statute books of the country, consigns to the physician "the right" to "manufacture and compound medicines"? True, there are many physicians throughout the country who do prepare proprietary remedies and push their sale ; still this does not say they are the only persons who should do so, neither, we think, will our contemporary attempt to justify them.

Our contention is, if proprietary medicines are to be manufactured, the druggist is the one who should make them, and "make a trade of them to everybody."

Another complaint made by physicians is in respect to the refilling of prescriptions by druggists. This matter we spoke of at length in a recent issue. We would merely notice a threat made in the *Dominion Medical Monthly*, where its says, "A physician can now keep his supply of tablets, triturates, pills, dressings, etc., in such a convenient form that he can give his own medicines to his patients at very little waste of time. If the druggists are not careful, they may force medical men to keep their own supplies." All of which is quite true, and, referring to the first clause, we know of instances—and who does not?—of physicians now dispensing their own medicines, sometimes charging for them and sometimes not, in some cases giving advice and medicine as low as twenty-five cents, and ranging upwards to five dollars and sometimes more. The threat to "keep their own supplies," therefore, does not alarm many ; but how would it do for every druggist to have his own physician, who could prescribe free? If doctors will go at us with "daggers drawn," surely we must, as pharmacists, prepare to meet them, and "where there's a will there's a way." Let us rather, therefore, work harmoniously together, as we should do, each keeping as much as possible within his own limit, and be co-laborers in the main aim and end of both professions—the relief of the suffering and cure of the diseased.

Cash Discount.

The wholesale drug houses of Montreal have issued a joint circular in reference to discounts, etc., which reads as follows :

On and after January 1st, 1895, our terms will be as under :

Monthly accounts (four months' goods) paid on or before the fifteenth day of the month following that of purchase will be subject to 5 per cent. discount.

If paid after that date, and on or before the last day of the same month, 3 per cent. discount will be allowed.

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Business for 1895

SHOULD start off with a boom, and we are fully prepared to aid you in making it a profitable year, if you will but invest a portion of your business capital in the best line of Non-secret Preparations that are manufactured. We are pioneers in the trade, having been the originators of the **Non-secret Idea**; and though our prices are, in some instances, a trifle higher than those of competing houses, the quality of our products will well warrant the slight advance. We strive to manufacture the best preparations that can be made, our motto being

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Our lines of SARSAPARILLAS, COUGH SYRUPS, WORM MEDICINES, LINIMENTS, SALVES, and other popular household remedies are very attractive and saleable. They are made of pure materials, are of excellent formulæ, are finished with handsome and artistic wrappers, and yield **a liberal profit** of from **100 per cent. to 400 per cent.** The great points in their favor are that they are true to the formulæ printed on the labels. The goods bear your address (you know what you are selling), and your trade on them, once established, will prove permanent and profitable.

Our Non-secret Catalogue for 1895 is carefully compiled and handsomely illustrated. A careful perusal will repay you well, for we show you our formulæ, what the goods cost, what they sell for, and the exact margin of profit to be made on each preparation.

Send for a copy of our Catalogue for 1895, or fill out the attached coupon, and mail to

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Monthly statements will be rendered promptly.

Montreal, Dec. 10th, 1894.

Perfumes and Formulæ for Their Manufacture.

By Jacob Jesson, Muskegon, Mich.

The query, "How far is it expedient for pharmacists to manufacture their own perfumes, and what formulas can be proposed for their manufacture?" may be answered with the statement that it is expedient so far as the pharmacist may desire pleasure and profit from his business. The art of manufacturing perfumes by right belongs to the pharmacist, but it has drifted into the hands of specialists, owing to the general impression that it is something mysterious and difficult. I assure you, however, that it is not difficult, and every pharmacist of ordinary intelligence should be able to supply his trade with goods equal to those produced by domestic or foreign specialists. The outlay required is small compared with the profits derivable from the investment. The essential oils and pomades required can be obtained from wholesale druggists, and in the desired quantities. The formulas herewith presented have been in use by me for the past seven years, and may be accepted as reliable. . . . I have divided the subject into three parts, (1) a short description of each article, and the mode of preparing the tincture, spirit, or essence; and as these formulas have proven to be good and practical, we herewith publish them. The materials entering into the manufacture of perfumes are obtained in different parts of the world, and from the vegetable and animal kingdoms.

ALMOND (AMYGDALA AMARA).

Is a native of Persia, Syria, and Barbary, and is cultivated in Southern France and Italy.

Almond Spirit.

Oil of bitter almonds.....drops 80
Deodorized alcohol.....oz. 16

Procure the best Cologne spirits or deodorized alcohol obtainable. Do not use common alcohol, as its odor is too strong and pungent for perfumers' use.

AMBERGRIS.

This substance, which is found floating in the sea, or is thrown up by the waves upon the shores of various countries, is now generally believed to be produced in the intestines of the sperm whale. The best gray ambergris is quite expensive, but is the only one worth buying.

Tincture of Ambergris.

Ambergris.....drams 2
Powd. orris root.....drams 2
Deodorized alcohol.....oz. 16

Grind the ambergris and orris in a mortar until reduced to a fine powder; transfer to a bottle, and add the alcohol. Macerate for thirty days, and filter through paper.

BENZOIN (BENZOINUM).

Benzoin is imported from Borneo, Java, and Siam. The tincture of benzoin has the property of adding permanence to some of the more fleeting odors.

Tincture of Benzoin.

Gum benzoin, in fine powder.....oz. 2
Deodorized alcohol.....oz. 16

Macerate for thirty days and filter.

BERGAMOT (CITRUS BERGAMIA).

The oil is obtained in Italy by expression from the peel of the fruit. It should be kept in a dark place and in a tightly corked bottle. If not well taken care of, it soon loses its green color, becomes cloudy from a deposit of resin, and acquires a turpentine smell. Care should be taken to preserve all oils as above directed.

CASSIE (ACACIA FARNESIANA).

Cassie is cultivated in Southern France and Italy, and produces a very valuable perfume, resembling violets, but stronger.

Essence of Cassie.

Cassie pomade.....oz. 16
Deodorized alcohol.....q.s. or oz. 16

Introduce the pomade and alcohol into a Mason fruit jar of half gallon capacity. Digest by means of a water bath until the pomade is barely melted; shake well together, and repeat the shaking frequently until cold. Allow this to stand forty days; then drain off the essence. If this falls short of one pint, repeat with a sufficient quantity of alcohol to make up that measure. The washing can be continued and a second pint of essence obtained, which, although much weaker, may be found useful in a cheaper grade of perfumes.

CLOVE (CARYOPHYLLUS).

The clove tree is one of the most elegant trees found in the Moluccas and other islands of the Chinese seas. Clove is a leading feature in some of the fine bouquets.

Spirit Cloves.

Oil of cloves.....drams 4
Deodorized alcohol.....oz. 16

CITRONELLA (ANDROPOGON MARDUS).

Oil of citronella is obtained by distillation from citronella grass, a native of Ceylon and India.

CIVIT (FROM VIVERRE CIVETTA).

The substance is secreted by the civit cat. It is found in a large double glandular receptacle, between the anus and pudendum. The cat abounds in portions of Asia. Civit has a most disagreeable odor, but as a fixing substance, for giving permanence to the more fleeting odors, it is very valuable.

Tincture of Civit.

Civit.....dram 1
Powd. orris root.....dram 1
Deodorized alcohol.....oz. 16

Proceed as with tincture of ambergris.

GERANIUM (PELARGONEUM CAPITATUM).

Geranium oil is obtained in Southern France and Turkey, from rose leaf geranium.

Spirits of Geranium.

Oil of geranium.....oz. 1
Deodorized alcohol.....oz. 15

JASMINE (JASMINUM ODORATISSIMUM).

Jasmine is cultivated in Southern France and Italy. Its odor is so peculiar and fine that it cannot, itself, be imitated, but it is used for imitating odors of other flowers.

Essence of Jasmine.

Jasmine pomade.....oz. 16
Deodorized alcohol.....q.s. or oz. 16

Proceed as with cassie.

LAVENDER (LAVENDULA VERA).

The best of oil of lavender comes from Mitcham, in England, where the plant is grown extensively.

LEMON (CITRUS LIMONUM).

The lemon tree is a member of the great citrus family. Sicily produces a large amount of the oil of lemon. The raising and extracting of oils of lemon, orange, and bergamot form one of the chief industries in the vicinity of Palermo. A good *essence of lemon* for dispensing, or for soda water syrups, may be prepared as follows:

Oil of lemon.....drams 4
Carb. magnesia.....“ 4
Sugar.....“ 4
Deodorized alcohol.....oz. 8
Water.....oz. 8

Dissolve the oil in two ounces of alcohol; triturate in a mortar with the magnesia and sugar. Gradually add the remainder of the alcohol and water, and filter.

LEMON GRASS (ANDROPOGAR CITRATUS).

Is a species of grass growing in India. On account of its odor resembling verbena, the oil is used for preparing the extract of verbena.

MUSK (FROM MOSCHUS, MOSCHATUS).

Musk is obtained from the musk deer, a small animal inhabiting the mountainous regions of Central Asia. Grain musk is the best form in which to purchase the article. Musk is used extensively in perfumes, both as a simple extract and for giving permanence to more fleeting odors.

Tincture of Musk.

Grain musk.....drams 2
Hot water.....oz. 1
Deodorized alcohol.....oz. 15

Rub the musk to a fine paste with the hot water. Digest in a covered mortar

for two hours, add the alcohol, and transfer to a tightly-corked bottle. Digest for thirty days and filter.

ORANGE (CITRUS AURANTUM. CITRUS BIGARADE).

From the orange tree is obtained five distinct and valuable perfumes: (1) The true flower odor, obtained by digesting the flowers with lard; (2) oil neroli petale or oil neroli bigarade, by distilling the flowers of the sweet and bitter orange respectively; (3) oil of neroli petit grain, by distilling the leaves and unripe fruit; (4) oil of orange Portugal, obtained by rolling the fruit in a metal cup covered with spikes, known as an ecuelle, which wounds the fruit and causes the oil to flow from the oil glands; (5) commercial oil of orange, obtained by expressing or distilling the orange peel. The orange tree is cultivated extensively in Southern France, Italy, and Sicily.

Essence of Orange Flowers.

Orange flower pomade.....oz. 16
Deodorized alcohol.....q.s. or oz. 16

Proceed as with cassie.

Neroli Spirit.

Oil neroli petale.....drams 4
Deodorized alcohol.....oz. 16

ORRIS (ORIS FLORENTINA).

Is largely cultivated near Florence, Italy.

Tincture Orris.

Orris root pulverized.....oz. 8
Deodorized alcohol, enough to make.....oz. 16

Prepare by percolation.

PATCHOULY (POGOSTEMON PATCHOULL LINDLEY).

Patchouly is a native of Selhet, a district of Bengal. It is also found in Java, Ceylon, and portions of China. The oil is distilled from the fresh herb. It has a very peculiar musty, mossy odor; but, when properly blended, forms a very fashionable perfume.

PIMENTO.

The allspice tree is a native of the West Indies, Mexico, and South America. The oil is obtained by distilling the berries.

ROSE (ROSE CENTIFOLIA).

This is truly the Queen of Flowers, and, although roses are found growing wild in nearly every part of the world, it is only in France, Turkey, and India that they are cultivated for their perfume. The Turkish oil is the one commonly found in the market. Oil of rose should congeal at 80 deg. F. When slowly cooled to 50 deg. F. the oil becomes a transparent solid, interspersed with numerous slender, shining, irridescent scale-like crystals (U.S.P.). The oil is obtained by distilling the flowers with water.

Essence of Rose.

Rose pomade.....oz. 16
Deodorized alcohol.....q. s. or oz. 16

Proceed as with cassie essence.

Spirit of Rose.

Oil of rose.....drams 2
Oil of rose geranium.....“ 1
Doodorized alcohol.....oz. 16

The oil of rose geranium is added to give permanence to the spirit.

ROSEMARY (ROSMARINUS OFFICINALIS).

The rosemary plant is a native of the borders of the Mediterranean Sea. It is also cultivated in this country. The oil is one of the leading ingredients in Cologne.

SANTAL (SANTALUM ALBUM).

The oil is distilled from the wood, which is a native of Australia and the South Sea Islands.

Spirit of Santal.

Oil of santal wood.....drams 2
Deodorized alcohol.....oz. 16

TONKA (DIPTERIX ODORATA).

The Tonka bean is the fruit of a large South American tree. When fresh they are very fragrant, having a strong odor of new-mown hay. They are exported from Para and Angustura. Tonka beans are used for scenting snuff, and by unscrupulous dealers for adulterating vanilla. And in perfumery in the form of tincture they enter into many of the leading bouquets.

Tincture of Tonka.

Tonka beans.....oz. 6
Deodorized alcohol, a sufficient quantity.

Reduce the beans to a coarse powder; macerate in a corked bottle with 16 ounces of alcohol four days. Then filter and add enough alcohol through the filter to make the product measure 16 ounces.

TUBEROSE (PALEANTHES TUBEROSA).

The tuberose is a native of the East Indies. It is cultivated for its perfume in Southern France. Its odor is very fine and is a general favorite.

Essence of Tuberose.

Tuberose pomade.....oz. 16
Deodorized alcohol.....q. s. or oz. 16

Proceed as with cassie.

VANILLA (VANILLA PLAINFOLIA).

The best vanilla beans come from Mexico. Tincture of vanilla is used as a fixing ingredient to some perfumes.

Tincture of Vanilla.

Vanilla beans.....oz. 1
White sugar.....oz. 1
Deodorized alcohol.....oz. 16

Cut the beans in small pieces. Beat with the sugar in a mortar until they are reduced to a coarse powder. Macerate with the alcohol for thirty days and filter.

VIOLETS (VIOLA ODORATA).

A very delicate odor, but very fleeting; by the addition of some of the stronger properties a very fine and popular perfume is obtained. Violets are cultivated in Southern France.

Essence of Violets.

Violet pomade.....oz. 16
Deodorized alcohol.....q. s. or oz. 16

Proceed as with cassie essence.

VITIVERT, OR KUS KUS (ANDROPOGAN MURICATUS).

Is the rhizome of an Indian grass.

Spirits of Vitivert.

Oil of vitivert.....drops 30
Deodorized alcohol.....oz. 4

YLANG OR IHLANG (CANANGA ODORATA).

This plant is found in the Phillippines and the islands of the Indian Archipelago. The oil is obtained by distilling the flowers. The perfume is very characteristic and lasting.

Spirit of Ylang.

Ylang oil.....drams 3
Deodorized alcohol.....oz. 4

In the following formulæ, if the perfumes are too expensive, the ambergris can be omitted and civit substituted, except in extract of ambergris. The musk can also be reduced in strength one-half and still yield satisfactory results. In all cases secure the best goods, regardless of price. In perfumes as well as in medicines quality is of the first importance. When the perfumes are mixed they should be frequently agitated, and allowed to stand for two or three weeks before filtering. Age improves all perfumes if kept in a moderate atmosphere and in a dark place.

(1) AMBERGRIS EXTRACT.

Spirit of rose.....oz. 3
Tincture of ambergris.....“ 8
“ musk.....“ 4
“ vanilla.....“ 1

Where permanence is desired this can be recommended.

(2) ESS. BOUQUET.

Spirit of rose.....oz. 8
Tincture of ambergris.....“ 1
“ orris.....“ 1
Essence of cassie.....“ 1
Oil of bergamot.....drops 30
“ lemon.....“ 60
“ neroli petale.....“ 15
Deodorized alcohol.....oz. 5

(3) FRANGIPANNI.

Tincture of musk.....oz. 5
“ civit.....drams 4
“ orris root.....oz. 3
Essence of orange flowers.....“ 3
“ tuberose.....“ 3
Spirit of vitivert.....“ 1
Oil of santal.....drops 60
“ neroli petale.....“ 60
“ rose.....“ 120
“ rose geranium.....“ 60

Where there is a demand for something lasting regardless of price, this will prove satisfactory.

(4) ROSE GERANIUM EXTRACT.

Oil of rose geranium.....oz. 1
Deodorized alcohol.....“ 15

(5) HELIOTROPE.

Tincture of vanilla.....oz. 8
“ ambergris.....“ 1
“ civit.....“ 1
Spirit of rose.....“ 3
Essence of rose.....“ 3
Oil of bitter almond.....drops 5

(6) HONEYSUCKLE.

Essence of rose.....oz. 4
“ violet.....“ 4
“ tuberose.....“ 4
Tincture of vanilla.....“ 1
“ “ tolu.....“ 1
“ “ musk.....“ 1
Oil of neroli petale.....drops 3
“ “ bitter almond.....“ 2
Deodorized alcohol.....oz. 1

(7) JOCKEY CLUB.

Spirit of rose.....oz. 4
Essence of rose.....“ 1
“ “ tuberose.....“ 4
“ “ cassie.....“ 2
“ “ jasmine.....“ 1
“ “ orange flowers.....“ 1
Tincture of civit.....“ 2
“ “ musk.....“ 1

(8) LAVENDER EXTRACT.

Oil of lavender (Mitcham).....drams 4
Essence of rose.....oz. 2
Deodorized alcohol.....“ 14

(9) LILY OF THE VALLEY OR WHITE POND LILY.

Essence of tuberose.....oz. 8
“ “ jasmine.....“ 1
“ “ orange flowers.....“ 1
“ “ cassie.....“ 2
“ “ rose.....“ 2
Spirit of rose.....“ 1
Tincture of vanilla.....“ 1
Oil of bitter almonds.....drops 2

(10) MILLEFLEURS (THOUSAND FLOWERS).

Spirit of rose.....oz. 2
Essence of rose.....“ 1
“ “ jasmine.....“ 4
“ “ orange flowers.....“ 1
“ “ cassie.....“ 2
Tincture of orris.....“ 2
“ “ tonka.....drams 4
“ “ ambergris.....“ 4
“ “ musk.....“ 4
Oil of bitter almonds.....drops 3
“ “ neroli petale.....“ 3
“ “ cloves.....“ 3
“ “ bergamot.....“ 120

(11) MUSK.

Tincture of musk.....oz. 11
Spirit of rose.....“ 4
Tincture of civit.....“ 1

This is rather a high-priced article, but the tincture of musk can be reduced one-half with alcohol, and still yield a satisfactory result.

(12) NEW-MOWN HAY.

Tincture of tonka.....oz. 6
Spirit of rose.....“ 2
Essence of rose.....“ 2
“ “ jasmine.....“ 2
Oil of neroli petale.....drops 10
“ “ rose geranium.....“ 60
Deodorized alcohol.....oz. 4

(13) NIGHT-BLOOMING CEREUS.

Spirit of rose.....oz. 4
Essence of jasmine.....“ 4
Tincture of tonka.....“ 2
“ “ civit.....“ 2
“ “ benzoin.....“ 4

(14) ORANGE FLOWER EXTRACT.

Essence of orange flowers.....oz. 12
“ “ cassie.....“ 2
Tincture of musk.....“ 2

(15) PATCHOULY.

Oil of patchouly drops.....drops 75
“ “ rose.....“ 15
Deodorized alcohol.....oz. 16

SWEET PEA.

Essence of tuberose.....oz. 5
“ “ orange flowers.....“ 5
“ “ rose.....“ 5
Tincture of tonka.....“ 1

(16) CLOVER PINK.

Essence of rose.....oz. 6
“ “ cassie.....“ 4
Spirit of orange flowers.....“ 4
Tincture of vanilla.....“ 2
Oil of cloves.....drops 10

(17) RONDOLETIA.

Tincture of musk.....drams 4
“ “ ambergris.....“ 4
“ “ vanilla.....“ 4
Oil of bergamot.....“ 1
“ “ lavender (Mitcham).....drams 2
“ “ cloves.....“ 1
“ “ rose.....drops 30
Deodorized alcohol.....oz. 14

(18) ROSE.

White Rose (No. 1).

Spirit of rose.....oz. 8
Essence of rose.....“ 3
“ “ jasmine.....“ 4
Extract of patchouly.....“ 1

(19) *White Rose (No. 2).*

Oil of rose.....drams 2
“ “ “ geranium.....drops 30
Essence of rose.....oz. 4
Deodorized alcohol.....“ 16
Essence of jasmine.....“ 2
Tincture of musk.....“ 1
“ “ ambergris.....“ 1

Extract of white rose is a general favorite and cannot be recommended too highly.

(20) MOSS ROSE.

Spirit of rose.....oz. 9
Essence of orange flowers.....“ 8
“ “ rose.....“ 2
Tincture of civit.....“ 1
“ “ musk.....“ 1

(21) TEA ROSE.

Essence of rose.....oz. 4
Spirit “ “.....“ 8
“ “ santal.....“ 2
Essence of orange flowers.....“ 1
Tincture of orris.....“ 1
Oil of rose geranium.....drops 20

(22) SPRING FLOWERS.

Essence of rose.....oz. 7
“ “ violet.....“ 6
Oil of bergamot.....drams 1
Spirit of rose.....oz. 1
Tincture of ambergris.....“ 1
Essence of cassie.....“ 1

(23) TUBEROSE EXTRACT.

Essence of tuberose.....oz. 15
Tincture of ambergris.....“ 1

(24) UPPER TEN.

Tincture of vanilla.....oz. 4
“ ambergris.....“ 3
“ orris.....“ 3
Spirit of rose.....“ 3
Essence of orange flowers.....“ 3
Oil of bergamot.....drops 90
“ lemon.....“ 15

(25) VERBENA.

Oil of lemon grass.....drops 50
“ lemon.....“ 320
“ neroli petale.....“ 20
“ orange.....“ 160
Essence of orange flowers.....oz. 3
“ tuberose.....“ 3
Spirit of rose.....“ 3
Deodorized alcohol.....“ 6

(26) VERBENA (NO. 2).

Oil of lemon grass.....drams 3
“ lemon.....“ 3
“ orange.....drops 30
Deodorized alcohol.....oz. 15

(27) VIOLET.

Essence of violets.....oz. 11
“ cassie.....“ 2
Tincture of musk.....“ 1
“ orris.....“ 2

(28) VIOLET (NO. 2).

Essence of cassie.....oz. 6
“ rose.....“ 3
“ tuberose.....“ 3
Tincture of orris.....“ 3
Spirit of bitter almonds.....“ 1

(29) WOOD VIOLET.

Extract of violets (No. 2).....oz. 16
Oil of bitter almonds.....“ 15

(30) YLANG YLANG.

Spirit of ylang.....oz. 8
“ rose.....“ 4
Essence of jasmine.....“ 2
Tincture of civit.....“ 2

This is my favorite; it combines fragrance and lasting qualities at a moderate price.

(31) WHITE LILAC.

Essence of tuberose.....oz. 12
“ orange flowers.....“ 3
Tincture of civit.....drams 4
Spirit of ylang.....“ 4
Oil of bitter almonds.....“ 3

[This article was read before the Michigan Pharmaceutical Association, and has been republished in the *Registered Pharmacist.*—ED.]

The Disinfection of the Dust of Rooms.

Dr. P. Miguel has recently made a comparative study of the disinfectants available for the disinfection of living rooms. He condemns, first of all, the system by which the public can procure the most dangerous antiseptics, notably corrosive sublimate.

The experiments of the author have been chiefly made upon the dry dust of rooms, and have tried the effect of vapors of various volatile substances on microbes.

The classification of acid vapors in the order of their destructive activity with regard to microbes is as follows:

Osmic acid.
Hydrochloric acid.
Nitro-hydrochloric acid.
Formic acid.
Hydrocyanic acid.
Sulphurous acid.
Acetic acid.

Ammoniacal vapors are not capable of destroying the germs of all bacteria, and are, moreover, inactive against the spores of the anthrax bacillus; they act injuriously upon objects exposed to their action.

Methylic alcohol, though possessing an energetic disinfecting power, belongs to the class of antiseptics whose action is incomplete.

Ethylic alcohol, in some cases, is an unreliable bactericide, but in many cases gives satisfactory results.

The *butylic and amylic alcohol* are slow and inactive bactericides.

Formaldehyde seems to be a bactericide of altogether remarkable power, and the author thinks it is destined to supplant all the other antiseptics as soon as its cost is sufficiently reduced to make its general application practicable. The vapors of a 1 per cent. solution of formaldehyde will destroy all microbes and all germs of the typhus micro-organisms. They have no action upon other objects.

Having obtained this important result, Dr. Miguel commenced a series of experiments on “typhus bacillus,” using gradually diluted solutions of formaldehyde. He found that with a 2½ per cent. solution the bacteria were killed in forty-eight hours. It was only when the dilution reached 1 in 800 that the bacteria commenced to resist the action for a longer period—it was only killed, in fact, at the end of ninety-six hours—and with 1 part in 1,000 the time required to effect the same object was 168 hours.

As is the case with sulphur dioxide, the vapor of the aldehyde has great penetrating powers, and destroys the microbes even when the dust has accumulated to a great depth.

In the direct experiments made upon cultures in *bouillon*, 1 part of formaldehyde in 2,000 stopped all growth, whilst to produce the same effect with corrosive sublimate twice this proportion was necessary.

The author has also satisfied himself that no risk is run through breathing the vapor, and states that a person can breathe freely for several minutes in a closed room in which a 10 per cent. solution was left to evaporate, without suffering any inconvenience.

Briefly summarizing the results, formaldehyde combines all the qualities of an excellent disinfectant: promptness of action, considerable penetrative power, energetic action at low temperatures, innocuousness towards metals and other objects exposed to the vapor, and to inhalation at the strength used for bactericidal purposes.

The author, continuing the study of aldehydes in this connection, arrives at the conclusion that formaldehyde, trioxymethelene (polymerized formaldehyde), and benzoyl chloride may be classed in the order named as absolute disinfectants; two others, viz., benzylic aldehyde and chloral as relative disinfectants.

The author has also determined the relative disinfecting value of various essential oils, and classes them in the following order, the temperature during the experiments being constant (15°C.), and the duration forty-eight hours:

	Percentage of bacteria destroyed.
Essential oil of almonds (bitter)	99
" " thyme	99
" " cumin	95
" " peppermint	93
" " giraflé	92
" " neroli	90
" " lemon	88
" " lavender	81
" " canella	75
" " aspic	74
" " eucalyptus	74
" " rosemary	73
" " terebenthine	66
Camphor	66

The essences are agreeable disinfectants, not affecting either materials or colors, but of limited value on account of the incompleteness of their action.—*Ann. de Micrographie*, 1894; *Manufacturing Chemist.*

Three Creosote Preparations.

By H. L. Grimes.

Urged by the growing importance of creosote as a therapeutic agent, and by the frequent inquiries by physicians for a palatable form of administering the same, I made a series of experiments to attain that end.

Owing to the peculiar and persistently pungent taste of creosote, there is nothing, in my opinion, short of the gelatin capsule, that will completely mask it. However, as this form of administration is not always eligible, I confined my efforts to combining the drug with other agents calculated to modify the pungency of the drug to a greater or smaller extent, and make the medicament more acceptable to the palate and to the stomach.

In all pharmaceutical preparations of creosote, intended for internal use, none but the purest beech-wood creosote should be used. That of Merck & Co.'s importation takes preference with me.

The three appended formulas have been deduced from my experiments, and the products have received the approval of many very prominent physicians:

WINE OF CREOSOTE.

Creosote (Beech-wood)	96 min.
Alcohol	1 fl. oz.
Oil Cinnamon	24 drops
Oil Cloves	12 drops
Oil Anise	12 drops
Syrup Orange-Peel	4 fl. oz.
Sherry Wine	8 fl. oz.
Simple Elixir, enough to make	16 fl. oz.

Dissolve the creosote and oils in the alcohol, add the wine, syrup, and elixir, and filter through purified talcum. Each tablespoonful represents 3 minims of creosote. The dose is a tea- to a tablespoonful three or four times a day, after meals.

EMULSION OF CREOSOTE.

Creosote (Beech-wood)	768 min.
Powdered Acacia	1080 grs.
Water, enough to make	32 fl. oz.

Triturate the creosote with the acacia in a dry mortar, and add, all at once, 27 fluid drams of water; stir briskly with the pestle until the nucleus of the emulsion is formed, and add enough water to make 2 pints; finally, strain through a cloth. This is a convenient preparation for admixture with other medicaments. Each tablespoonful contains 3 minims of creosote.

Perhaps the most admirable combination is a creosoted emulsion of cod-liver oil with hypophosphites, of which the following is the formula:

CREOSOTED EMULSION OF COD-LIVER OIL WITH HYPOPHOSPHITES.

Cod-Liver Oil	32 fl. oz.
Creosote (Beech-wood)	6½ fl. drs.
Powdered Acacia	8 oz.
Glycerin	4 fl. oz.
Syrup Orange-Peel	2 fl. oz.
Calcium Hypophosphite	555 grs.
Sodium Hypophosphite	555 grs.
Oil Wintergreen	2 fl. dr.
Oil Sassafras	2 fl. dr.
Oil Cinnamon	2 fl. dr.
Distilled Water, enough to make	4 pints.

Mix the cod-liver oil, creosote, and essential oils with the acacia, in a dry mortar; dissolve the hypophosphites in 12 fluid ounces of warm water, pour the solution, all at once, into the mixture of oils, creosote, and acacia, and stir briskly in one direction with the pestle until emulsification takes place; then add the glycerin, syrup, and enough water to make 4 pints, and strain through a cloth. Recently-distilled water should preferably be used in these emulsions; but, if none is at hand, water that has been freshly boiled and filtered will serve the purpose. In cold weather the water should be slightly warmed, else the emulsion will be very slow in forming. The creosote in the latter emulsion temporarily obtunds the sense of taste to a considerable degree while the preparation is being swallowed, and helps to conceal, in a measure, the unpleasant taste of the cod-liver oil.—*Merck's Market Report.*

The Origin of Pharmacy.

The historian of the St. Louis *Globe-Democrat* has been occupying himself with the origin and development of pharmacy, and as a result we have an interesting study of the subject.

3300 YEARS B.C.

The identity of the druggist and the medicine man, he remarks, are, in the early ages, after as well as before Christ, necessarily almost inseparable. As early as 3300 years B.C., in the reign of Sent, we find directions as to the preparation of prescriptions. The giving of these was accompanied by incantations, so that the faith-cure advocates of to-day may almost claim this great antiquity. That the school of pharmacy was known among the Assyrians is abundantly attested. In the Ebers papyri, 1600 B.C., we have prescriptions of famous physicians. There were blisters and powders and ointments and the general use of drugs, both mineral and vegetable. The Hebrews early absorbed a curiosity as to the pharmaceutical art, so great that they had a medical school of their own at Sora, as late as 200 A.D. There was also development in pharmacy in China at a very early day, Ching Nong, a contemporary of Menca I., being learned in the art. Hippocrates, 460-370 B C., is authority for many facts going to show that in the temples of Æsculapius the art of medicine became somewhat systematized. The pharmacists dwelt within the walls, whilst the physician went out among the people. With Hippocrates, however, the physician and the pharmacist became one. His relations are of his predecessors. He carried his drugs with him. In consequence of an epidemic, about 187 B.C., temples were erected to Æsculapius and Hygeia, introducing pharmacy and therapeutics into Rome. About ninety years later, or about 100 B.C., the people of Rome purchased a "shop of surgery" for Areagathus, who had left Greece for Rome. There he practised both medicine and pharmacy. He had a fancy for operations, and was therefore driven out.

IN THE YEAR 1.

After this the extensive use of drugs showed the tendency towards pharmacy. Monecrates, 1 A.D., was one of the earliest of these disciples. He invented diachylon plaster, which is much the same as that used to-day. So also was Archigenes. He employed opium in dysentery. Another pioneer in pharmacy was

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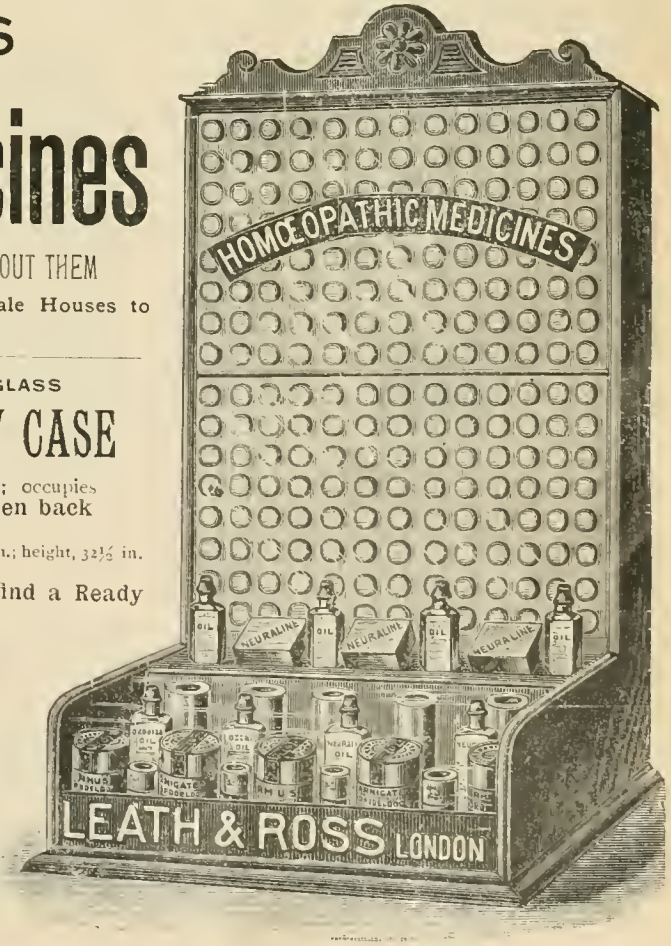

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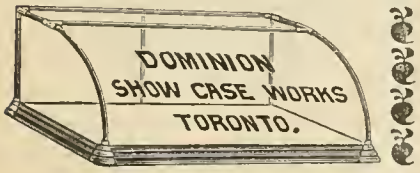

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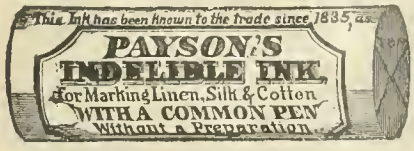
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Dioscorides, a student in botany and pharmacology, whose work was recognized as an authority as late as the seventeenth century. Dioscorides described 400 different plants. Galen was the first to secure the aroma of plants by distillation. His supremacy was maintained for 1,400 years. It is on record of him that he kept a drug store in Rome. He added half as many to the plants described by Dioscorides. Then came a period of decline. There were, however, three great men—Buffus, who discovered the function of the recurrent laryngeal nerve, and Aurelianus and Leonidas, who proposed isolation in contagious diseases, and who were denounced as brutes for this action. Oribasius, in the fourth century, was very active in pharmacy. Pope Gregory the Great, in the sixth century, proclaimed the school of homœopathy, which, however, had prevailed in China several centuries before.

PHARMACY AMONG THE ARABIANS.

The Arabians did much to extend the practice of pharmacy, together with the separation of medicine and pharmacy, which was recognized as early as the eighth century. The Arabians held the practitioners of medicine in very high esteem. Mahomet himself had a fancy for the healing art, and there is reason for believing that numerous medical works were preserved by the Arabian physicians out of the destruction of the Alexandrian library. There were two great schools among the Arabians. Many drugs were imported from the East, and this gave birth to an army of dealers, physicians, who also practised pharmacy, and who were thus distinguished from the regular apothecaries. They existed in Italy as early as the eleventh century. It is also important to know that the separation of medicine and pharmacy was established by law among the Arabians as early as the eleventh century. The school at Salerno compelled its graduates to swear not to give or accept percentages on prescriptions. This school was founded in the seventh century, but subsequently fell under the control of the Arabs, after which their ideas as to the separation of medicine and pharmacy prevailed.

PHARMACY UNDER THE SARACENS.

It is beyond doubt that, prior to the twelfth century, there were drug stores in Cordova, Toledo, and other large towns, and that these establishments were under very severe restrictions. The material for the law passed in 1233, and which remained in force a long time, was drawn from these laws by Emperor Frederick II., of the two Sicilies. Under this law every physician was required to give information against any pharmacist who should sell bad drugs. Pharmacies were divided into two classes:—(1) The stationarii, who sold simple medicines and non-magistral preparations according to a tariff determined by competent authority; and (2) the confectionarii, whose business consisted in scrupulously dispensing the prescriptions of the medical men. All such establishments were placed under the surveillance of the College of Medicine. Pharmacy was, to a great extent, under the control of the Arabian physicians during the Middle Ages. The religious orders, the Benedictines particularly, largely devoted themselves to pharmacy, pharmacology, and therapeutics. These monks were forbidden to shed blood, so surgery largely fell into the hands of the barbers. With the rise of alchemy, medicine, pharmacy, chemistry, toxicology, the grocery business, the confectionery business, and barbering became one combined trade. In Spain, under the auspices of the Saracens, pharmacy attained a status it never lost. So, also, in Italy. The development of pharmacy in Germany and England, however, took place somewhat later, so that the beginning of their pharmacal history is comparatively recent.

EARLY GERMAN DRUGGISTS.

The history in Germany begins in the thirteenth century. A drug store is found to have existed at Muenster in 1267, and one in Augsburg in 1285, and a third in Hildsheim in 1318. So the growth was very slow. The establishment at Hildsheim was originally the property of the church, but after 1385 was controlled by the city. That the boundary line of pharmacy and medicine was clearly defined at this period is shown by the existence of a parchment ordinance of the city of Nuremburg, 1350. This decree ordains that the druggist shall conscientiously fill all written and verbal orders on him according to his best ability; that he shall use none but pure drugs; that he shall treat rich and poor with equal courtesy; that he shall be modest in his charges, and not demand more than he needs to feed and clothe himself and those dependent upon him, allowing a reasonable advance in the cost of the drug as a compensation for his service.

THE GROCER APOTHECARIES OF FRANCE AND ENGLAND.

In France and England grocers and spicers were early united with apothecaries. In 1345 King Edward of England gave a pension of six pence a day to an apothecary of London who took care of his majesty during his illness in Scotland. The separation of the apothecary and the physician must have been pretty complete about that time, and it is also pretty certain that the populace suspected both of giving and taking percentages on prescriptions. This is shown in the "Canterbury Tales," in which Chaucer says of his physician:—

Full ready had he apothecaries
To send him drugs and lectuaries,
For each of them made other to winne,
Their friendship was not new to begin.

The pictures of the old apothecaries still in existence are of considerable interest. One of them of a drug store of 1548 is vividly described by Shakespeare, fifty years later, in Romeo and Juliet:—

I do remember an apothecary—
And hereabouts he dwells—which have I noted
In tatter'd weeds, with overwhelming brows
Culling of simples, meagre were his looks,
Sharp misery had worn him to the bones;
And in his needy shop a tortoise hung,
An alligator stuffed, and other skins
Of ill-shaped fishes; and about his shelves
A beggarly account of empty boxes,
Green earthen pots, bladders and musty seeds,
Remnants of packthread and old cakes of roses,
Were thinly scattered to make up a show.

THE OLDEST PICTURE OF A DRUG STORE.

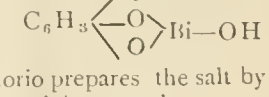
The oldest picture of a drug store is one of 1450. It looks like the warehouse of a creamery, with buckets full of butter piled shelf upon shelf, and might easily be taken for such a place were it not for the presence of the druggist preparing his drugs in a three-legged mortar. Another of 1505 shows the pharmacist, in all his official robes, designating to his assistant with his sword the drugs to be used. Another, of 1536, is still more pretentious. It is shown while it is undergoing the very rigid inspection provided by law.

The first trace of a pharmacal corporate body is found in Bruges, in Belgium, in 1297. It had a large hall, seals, statues, and a chapel. Divine services were held every day, and members sworn in. Its members were of distinguished families. It had the exclusive right to sell medicines, and soon became rich and powerful.—*American Druggist.*

Pyrogallate of Bismuth.

This compound has recently been introduced as an antiseptic medicine, and the striking feature of the body is that whilst pyrogallic acid is a virulent poison, the pyrogallate of bismuth appears to be non-toxic.

Voswinkel prepares the compound by dissolving separately 150 grammes of pyrogallol in 630 grammes of a 25 per cent. solution of common salt, and 316 grammes of bismuth trichloride in 1,000 grammes of the same solution. The two solutions so obtained are filtered, mixed, and warmed together for half an hour on the water bath. The product is then poured into twenty parts of water, whereby the basic salt is precipitated. After allowing to settle the liquor is filtered off, and the precipitate washed until the washings are free from chloride. According to Voswinkel, the product so obtained has the formula—



Vittorio prepares the salt by triturating in a porcelain capsule two parts of carbonate of bismuth and one part of pyrogallol with sufficient water to make a thin cream. The whole is then heated on the water bath, replacing the water, which evaporates as long as carbonic acid gas is evolved. The mass gradually becomes yellow. When the reaction is completed, the whole is thrown on to a filter and washed with warm water until the wash water is no longer colored violet on addition of lime water, after which the product is dried at a temperature not exceed-

ing 50°. The pyrogallate so obtained possesses a sulphur-yellow color, and contains 60.1 per cent. of bismuth. The amount of pyrogallol in the compound may be determined volumetrically by means of a solution of iodine, using starch paste as an indicator. The blue color of the iodide of starch is only formed when all the pyrogallate is decomposed. It is necessary to work with very dilute solutions, and 762 parts of iodine correspond to 126 parts of pyrogallol. The bismuth is removed by passing sulphuretted hydrogen through water containing a weighed quantity of the pyrogallate in suspension, and the excess of the gas removed by warming the liquid. By this means Vittorio finds that his preparation corresponds with the formula— $C_6 H_5 O_4 Bi$.

The author concludes as follows from his researches:

(1) Pyrogallate of bismuth, even in considerable doses, is not toxic.

(2) When introduced into the system, it suffers but little decomposition in the intestines. The bismuth passes through the system, whilst the pyrogallol is only found in the form of the products of its oxidation.

(3) By reason of its slight solubility, its application is advantageous in all cases where the use of pyrogallol is desired without the risk attendant on the simple acid. In particular, therefore, it is recommended in infectious maladies of the intestines.—*Journal de Pharm. et de Chim.; Manufacturing Chemist.*

Demonstration of Wood Fibre in Paper.

Wolesky states in the *Papierzeitung* that if paper, either sized or unsized, be wet with a solution of diphenylamin in alcohol, to which sulphuric acid has been added, if wood fibre be present it will show itself by an orange reaction that is very characteristic. The intensity of the color is in direct proportion to the amount of the fibre present. In colored papers, which yield to sulphuric anilin very feeble or no results at all, and even phloroglucin gives a very faint reaction, the diphenylamin test gives most satisfactory results, the orange coloration becoming very marked as the paper dries. Yellow or orange colored paper sometimes makes the detection of wood fibre by this means somewhat difficult, but the difficulty is removed at once by bleaching the paper with a mineral acid, hydrochloric preferably.

Koch, the great bacteriologist, has placed himself under the care of Father Kneipp, the clerical water-cure practitioner.

In the French budget for 1895 is an appropriation of $15,000 to provide for the organization of chairs of dental surgery in several of the medical schools of that country.

Pharmacy Abroad.

Municipal Pharmacy. — It is not often that pharmacy is even remotely connected with such a hot debate in supreme legislative bodies as took place lately in the French Chamber. The Municipal Council of Roubaix is Socialist, and in carrying its opinions into practice established a pharmacy, managed by a duly qualified pharmacist, at which drugs were sold and prescriptions dispensed at cost price. The local pharmacists naturally objected to this, and agitated for the suppression of the municipal pharmacy. In virtue of a law prohibiting corporations from engaging in commercial transactions, this was done by the Prefect of the Nord. M. Guesde, a prominent Socialistic revolutionist leader and a deputy in the Chamber, seized the opportunity for a general debate on Socialistic doctrines. M. Dupuy, the Premier, showed how the establishment of a pharmacy would lead to other shops being opened, and to Collectivism. After violent speeches, a vote of confidence in the government was passed, and so the Roubaix pharmacists have got their way.—*British and Colonial Druggist.*

The Chinese Pharmacopœia.—The Chinese Pharmacopœia contains many peculiar remedies. Snow-water is supposed to be good for worms, while hail-water is poisonous. For eye troubles the excrescence of bats is recommended. Amber is nervine. Ink is a diuretic, and gunpowder is a vermifuge. Benzoin is good for stomach ache. It is much adulterated, but there is a sure test. If real, its fumes will charm rats out of their holes. Wheat bread is prescribed for a variety of complaints, and bread pills are an old remedy with celestial doctors. Verdigris is good for skin troubles. Ambergris is a substance coughed up by dragons, and is excellent for healing. Plasters of elephant hide are useful for wounds that heal slowly. Dried scorpions and seed pears cure a number of diseases. Ashes of paper are an astringent.—*New England Druggist.*

Pharmacy in Western Australia.—The Western Australian Pharmaceutical Society have succeeded in getting an Act passed through the legislature last month to control the practice of pharmacy in the colony. The Pharmaceutical Society of Western Australia is the official body, and will have the power of enforcing the subscriptions payable yearly for the right to keep open shop. All sellers of poisons are to hold a license from the society. The council will be elected by the chemists, but the Governor may remove any member of the council, and on the advice of the council he may direct the removal of any name from the register, and may add fresh items to the poison schedule. The Act comes into force on March 1st, 1895. Their rights are secured to persons already in practice, and the society are empowered to recognize certificates from other countries. Four years' apprenticeship is enjoined before passing the qualifying examination. The poisons regulations include directions for their safe keeping, and for sales by post. Medicines dispensed by medical men or by pharmaceutical chemists from prescriptions by medical men, as well as patent or proprietary medicines, are outside the poisons regulations.—*British and Colonial Druggist.*

Italy now requires that all compounded medicines sold within her borders shall bear outside the package a recipe showing the ingredients of which they are composed.

A Scientific Discovery from Japan.

A Japanese *savant*, Jokichi Takamine, who has studied at Glasgow and Tokio Universities, has discovered says *The Times*, a novel method of preparing diastase and some other substances, of which we recently received specimens. He has been cultivating *Eurotium oryzæ*, a mycelial plant of the *Aspergillus* family, on wheat-bran, and has found that, at an early stage of its growth, it bears upon its roots minute crystals of diastase, while the unripe spores contain a very powerful ferment. By washing the bran in percolators and crystallizing the solution, he claims to be able to obtain diastase of considerable purity as a commercial product. Takamine claims that a mixture of equal parts of this diastase (or "Takakoji," as he calls it) and crude wheat-bran, when added in the proportion of 10 per cent. to the quantity of grain mashed, will effect a more perfect conversion than the use of 10 per cent. of the best malt. The ferment is a very remarkable substance. It is said to be three times as powerful as yeast—that is, it will continue to produce fermentation in a sugar solution till there is 20 per cent. of alcohol present, whereas the action of ordinary yeast stops when the percentage of alcohol reaches 7. This one fungus, therefore, appears to produce in itself the converting agents required in two of the most important processes in the manufacture of beer and spirits. Besides this, the wheat-bran, after two or three cultivations have been grown upon it, is said to form a good food for cattle, containing some 20 per cent. of protein, or flesh-forming substance.—*British and Colonial Druggist.*

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small particle of red aniline, soluble in alcohol, be dropped into a vial of the synthetic oil, it will immediateiy show a disposition to dissolve, which is not the case with true wintergreen. Practically, this is found to be the case. In three to five minutes' time, by agitating vials of both oils with aniline in them, it will be noticed that the artificial product readily dissolves the aniline, whereas the other will hardly have any perceptible effect on it. After the lapse of fifteen minutes to half an hour both will be discolored, but the artificial will have a purplish tint, while the natural oil will be more of a cherry color, and, in proportion as the two are mixed, so will be the time and extent of coloration.

This is a delicate test, fit only for use by experts, for which reason we have not hitherto published it, as by it a careless user would probably reject all the oil he purchased, whether pure or otherwise. Before adopting it for use it will be well to make several experiments, in order to get a correct idea of the length of time requred for the action of pure oil wintergreen on the aniline, in comparison with the artificial or known mixtures of the two.—*American Soap Journal.*

Camphor.

A great variety of plants contain camphor, but the article of commerce known as camphor is chiefly obtained from the *Laurus camphora*, a tree which grows in Japan and the islands of the Eastern seas. The chief habitat of the tree, however, is the island of Formosa, where it reaches to its greatest size, and where most of the camphor of the Western commerce is produced.

In addition to these supplies, a large quantity is shipped from Japan, but there is considerable difference between the produce of the two localities, the latter being of a lighter color, and of a pinkish hue, and also a coarser grain than that obtained from Formosa, and it also commands a higher price in the market—almost twice the amount as that from the island. Although the camphor tree, or shrub, is found in China, especially abounding in the eastern and central provinces, Chekiang and Kiangsi, very little is manufactured in that country, although very large trees are met with, some of them being nine feet in girth, and the wood is an important item in the timber trade of Hankow. But in the island of Formosa the forest covers the line of mountains from north to south in those districts where the virgin vegetation has not given place to cultivation. The island of Formosa lies partly within the tropics. It is 210 miles in length, and 70 miles in width, and separated from China by the Formosa Strait, and the position is such as to render it a possession of importance for the Eastern trade. It has a fertile soil, and is extremely rich in minerals.

The island is inhabited partly by Chinese, and partly by the aboriginal savage tribes. These are natives, sprung from the Malayan stock, and are confined to the mountain country of the eastern and southern districts, while the Chinese are limited to the western and a small portion of the north. Year by year the latter slowly advance in their search for camphor, but at great risk to themselves, as there is no friendly feeling between them and the natives. The trade has of late years been gradually decreasing owing to the great risk entailed in collecting, and from the fact that the extraction of camphor causes the destruction of the tree, and this has never been made good by replanting, so the forest becomes less and less, the Chinese advancing, while the aboriginies retreat. The mutual jealousy and encroachments between the two parties are considerable.

The sight of a virgin forest, such as these in Formosa, when once seen will not easily be forgotten. The trees grow to a height of about fifty feet, the leaves are of a bright shining green color, and when bruised give out the odor of camphor. The wood is much prized and sought after for carpentry and cabinet work, as it is white and very fragrant, which latter quality is considered to act as a deterrent to all kinds of insects. The tree has of late years been introduced into other countries, and may be found in the Parisian nurseries, and is occasionally met with in Great Britain.

The method of collecting and preparing this substance differs considerably in the various countries in which it is found, and it is exceedingly pleasant and interesting to accompany the camphor merchants, although the expedition is attended by numerous risks in Formosa, as the work must be done in an enemy's country.

A careful selection of the trees is first made ; those chosen are such as possess an abundance of sap, for those which are dry are useless except for the wood, which in every case is secured, as it is in great demand. The camphor is prepared from such portions as the branches, roots, and refuse ; these are taken freshly cut, and reduced to small pieces, so as to be suitable for distillation. This process is done by means of stills fixed under temporary erections on the ground ; they are exceedingly rough and crude. A number of fires are then made, and over them is placed a long wooden trough or hollowed tree, coated with clay, and half filled with water. Boards pierced with holes are then fitted on to the trough, and above these are placed rough jars containing the camphor wood. The mouths of these jars are then covered with inverted pots, and the joints made air-tight by various methods, mostly by hemp packing.

The fires being lit, in course of time the generated steam passes from the water through the pierced boards, and so saturates the wood contained within the jars, causing the sublimated camphor to settle in crystals on the inside of the pots. It is then scraped off, and undergoes other processes of distillation for the purpose of purifying the substance. Within a copper vessel a layer of earth containing lime is placed, and on this layer is deposited the crude camphor. This again is covered by a layer of earth, and so alternately, until the vessel is full, the last layer being, of course, the earth. The whole is then covered with green mint.

A vessel formed of straw, covered on the outside with wet clay, is then put over the still and fixed. This combined apparatus is then placed over a fire and allowed to heat, and, after a considerable time, left to cool.

The vessels are then opened and the camphor is found to have sublimed, attaching itself to the upper vessels. From these it is scraped every few days, and is then very pure and clean. Camphor, when pure, is a white brittle substance, forming octagonal crystals or square plates.

For purposes of transport, camphor is placed in large vats or tubs with holes at the bottom ; through these holes passes an oily liquid, known as camphor oil, to the extent of three to four per cent. This possesses a very strong odor, and holds in solution a quantity of common camphor, which it deposits in crystals when exposed to a low temperature. This oil is much used by the Chinese as an embrocation for all rheumatic complaints, and bids fair to become a very valuable import. In Japan this oil is used for lighting purposes by the very poor, who burn it in open lamps, notwithstanding its odor and dense smoke.

Nearly all the camphor produced in Formosa is shipped from Tamsui, at the northern extremity of the island. This is, indeed, an interesting place, and the old Spanish fort on the eastern side of the harbor, built more than a thousand years ago, as well as the Consular prison, adds to its charms. Were it not for the trade in camphor the exports would be small indeed. From here, it is conveyed in native vessels to the various ports of China. Owing to its being badly packed, and the large quantity of water absorbed during its sublimation, the loss by evaporation during the sea journey is considerable.

This has been somewhat remedied of late years by means of an hydraulic press. But it is becoming more and more evident that the supply from this locality is gradually decreasing. The seaboard has no longer its camphor trees, and the collectors are compelled to go further inland for their supply. On the mountains in the interior there are still large tracts, but some care is necessary, so that the supply should not cease altogether.

The Japanese are, however, alive to the importance of this trade, and, as the tree is fairly distributed throughout that country, it will doubtless receive the attention of that enterprising nation, especially in the province of Tosa, in Sikok, for it is in this locality that the preparation of cam-

phor is carried on throughout the year, the best results being obtained in the winter. There are at the present time, under the care of the Japanese Forestry Department, large plantations of young trees, so that it is estimated that the supply of camphor is assured for the next twenty-five years. The distilling process is simple, but very much in advance of that used in Formosa. The article produced is never quite pure; it generally needs purifying after its arrival in Europe. A few years ago the annual imports into the United Kingdom were—unrefined, 12,368 cwt.; refined, 2,361 cwt.

This refining was for some time almost exclusively carried on in Venice, but it is now done in Great Britain, Holland, Hamburg, and Paris, the process being a most interesting one. The methods used vary in the several countries. Besides what is known as camphor, there are many varieties of the drug, differing somewhat from this article of Eastern commerce, such as Borneo and Malayan camphor, Borneole, Camphyl alcohol or Kapur Barus, Blumea or Ngai camphor, and others more or less known in perfumery and pharmacy, obtained from the leaves, flowers, fruit, and roots of various trees and shrubs, such as the bergamot tree, the bitter orange, orris root, thyme, tobacco leaves, and many other sources.—*G. D., in British and Colonial Druggist.*

Antidotes for Poisons.

In cases where other articles to be used as antidotes are not in the house, give two tablespoonfuls made mustard in a pint of warm water. Also give large draughts of warm milk or water mixed with oil, butter, or lard. If possible, give as follows:

For Bed-bug poison, Corrosive sublimate, Blue vitriol, Lead water, Saltpetre, Sugar of lead, Sulphate of zinc, Red precipitate, Vermilion.	Give milk or white of eggs, in large quantities.
For Fowler's solution, White precipitate, Arsenic.	Give prompt emetic of mustard and salt, tablespoonful of each; follow with sweet oil, butter, or milk.
For Antimonal wine, Tartar emetic.	Drink warm water to encourage vomiting. If vomiting does not stop, give a grain of opium in water.
For Oil of vitriol, Aqua fortis, Bicarbonate potassa, Muriatic acid, Oxalic acid.	Magnesia or soap dissolved in water, every two minutes.
For Caustic soda, Caustic potash, Volatile alkali.	Drink freely of water with vinegar or lemon juice in it.
For Carbolic acid.	Give flour and water or glutinous drinks.
For Chloral hydrate, Chloroform.	Pour cold water over the head and face, with artificial respiration, galvanic battery.
For Carbonate of soda, Copperas, Cobalt.	Prompt emetics; soap, or mucilaginous drinks.
For Laudanum, Morphine, Opium.	Strong coffee followed by ground mustard or grease in warm water to produce vomiting. Keep in motion.
For Nitrate of silver.	Give common salt in water.
For Strychnine, Tincture nux vomica.	Emetic of mustard or sulphate of zinc, aided by warm water.

—*Medical and Surgical Reporter.*

Thermometers and Thermometer Testing.

The *Zeitschrift für Instrumentenkunde* takes from a bulletin of the Physilkalisch-technischen Reichsanstalt, at Charlottenburg, the following interesting points concerning thermometers and their testing:—

After a thermometer has been "proved," a stamp is placed on it. This consists of the figure of an eagle, a number, and the current year. The stamp is filled with metallic bismuth, which many tests have demonstrated to be the most durable, even with the most severe handling.

All thermometers destined for scientific and technical use are marked with double lines, to avoid any incompetent tampering with the scale. Since recently a concern in Thuringen has been testing thermometers and giving certificates of accuracy which resemble in form and general appearance those of the institute, in future all of the latter will be headed and marked *Amtliche* (official).

The liquid amalgam of sodium and potassium (introduced, some five years ago, by Hempel, of Berlin) would seem to be applicable for high-grade thermometers without the use of compressed gases, as its boiling point is very high (between 680° and 700° C. = 1264°—1292° F.). Experiments, however, have demonstrated that even at 300° C. the glass begins to be attacked by it, and the effect is rapidly progressive with temperature rising above this point, until at 480° the entire filling becomes black (probably through the separation of silicon).

For filling thermometers for the measurement of very low temperatures (like Six's) cresote is used. The blue-colored liquids used in ordinary thermometers, cuproammonium acetate and cupropyridin acetate, are used.

The borosilicate glass recently recommended for thermometer tubes has proven itself very effective up to 300° C., and is therefore much used in the manufacture of high-grade instruments. The blue striped glass, the so-called resistance glass, introduced by Grenier & Friedricks, of Stuetzerbach, is also much used in high-class instruments.

In proving thermometers for ordinary temperatures, olive oil is used for the highest point, and a solution of a mixture of potassium and sodium salts are used as baths.—*National Druggist.*

Explosive Mixtures.

We are so frequently in receipt of complaints from our readers relating to explosions of mixtures that we think a few notes on some of the more frequently prescribed dangerous compounds may be of service.

Potassium Chlorate.—This is probably more often the cause of explosion than any other chemical which is handled by pharmacists. It should never be mixed in the powdered state with *organic substances*; even in very small traces in "saline," it is apt, after a time, if all the ingredients and the containing bottle is not absolutely dry, to burst the bottle and violently scatter the contents. It should should never be mixed dry with *tannin*. Occasionally a gargle is ordered containing these ingredients; they should always be dissolved separately. *Hypophosites* and chlorate similarly explode when mixed in the dry state. Chlorate of potassium and *glycerine* alone should never be dispensed, nor should it be combined with *sulphur* or the metallic sulphides.

Permanganate of Potassium is another source of danger, for the same reason as chlorate, it so readily gives up its oxygen; consequently, it should not be mixed with any organic bodies, such as *sugar* or *glycerine*, nor with *spirit of wine* or spirituous preparations. When ordered in the form of pills, it should be massed with kaolin and petrolatum.

Glycerine, in addition to the cases above mentioned, should not be combined with chromic acid; nor with *borax* together with *alkaline carbonates*.

Turpentines and Volatile Oils Containing Terpenes should not be combined with *strong mineral acids*, nor with *iodine or bromine*.

Iodine should never be mixed in the free state with any preparations containing free ammonia, especially when *combined with fatty matter*.

Oxide of Silver, sometimes ordered in the pilular form, should be massed with kaolin and petrolatum, and no *chloride* combined with it.

Spirit of Nitrous Ether frequently becomes very acid in keeping; in this state, when mixed with carbonates or bicarbonates, it liberates carbonic anhydride, and, if tightly corked, the bottle is frequently burst. Such a mixture should not be corked immediately after mixing. Excess of acid in the nitre may be removed by keeping a large crystal of sodium bicarbonate in the stock bottle, occasionally easing the stopper.—*British and Colonial Druggist.*

Salubrine.

Under this name a remedy has been patented in France, and the proprietors claim for it marvellous properties. It is composed of two parts of acetic acid, twenty five parts of acetic ether, fifty parts of alcohol, and twenty-three parts of water.

This mixture, diluted with varying quantities of water (from two to six parts water to one part of salubrine), possesses antiseptic and hæmostatic properties; it is used for contusions, certain skin diseases, corns, dental disease, insect stings, rheumatism, etc., and, in fact, the extraordinary virtues must be accepted with a very large grain of salt.—*Manufacturing Chemist.*

Only 906 persons in 1,000,000 die of old age.

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Formulary.

CLOTH CLEANSERS.

	Parts.
(1) Alcoholic spirit of ammonia	10
Oil of turpentine, rectified	10
Sulphuric ether	10
Oil of lavender	1
Alcohol, 90 per cent	169

Mix, dissolve, and filter.

	Parts.
(2) Spirit of ammonia	4
Ether	10
Benzine	30
Oil of lavender	1
Tincture of soap bark	45
Alcohol, 90 per cent	100

Mix and filter.

	Parts.
(3) Rectified turpentine	10
Benzine	10
Ammonia water	10
Alcohol, 90 per cent	70

	Parts.
(4) Benzine	999
Oil of turpentine	½
Oil of myrbane	½

Before applying any of the cleansers recommended to colored goods, an experiment should be made either with a sample of the goods, or on some portion which will not be seen, to determine whether directions given for treating the spot will affect the color.—*Dieterich's Manual.*

GLYCERINE AND ROSEMARY HAIR-WASH.

Ol. amygdal. dulc	ʒi.
Liq ammoniæ	ʒiij.
Ol. rosmarini	ɱx.
Glycerini	ʒij.
Spt. vini rect	ʒiv.
Aq. rosæ	ʒviij.

Mix the oils with the solution of ammonia and 2 oz. rose water, shake well, and add the glycerine, spirit, and the rest of the rose water.

ALMOND TOILET PASTE.

Blanched sweet almonds	oz.	12
Rice starch	oz.	3
Powderd orris root	oz.	1
Zinc oxide	oz.	½
White soft soap	oz.	1
Spermaceti	drams	2
Oil of almonds	fl. oz.	7
Oil of bitter almonds	minims	30
Otto	"	15
Rose water	"	q.s.

Beat the almonds to a paste with the rice powder, orris, and zinc oxide, and add the soap. Melt the spermaceti in the oil of almonds, and then beat all together, adding enough rose water to make a soft paste.—*British and Colonial Druggist.*

HEKTOGRAPH, OR COPYING PADS.

	Parts.
Gelatine, by weight	1
Glycerine	4
Water	2

INKS.

	Parts.
(1) Methyl violet	1
Water	7
Alcohol	1

	Parts.
(2) Rosaniline	2
Water	10
Alcohol	1

The patent for hektograph having expired, any one can make or sell it.—*Scientific American.*

BEDBUG EXTERMINATOR.

Soft soap	20 parts.
Water	65 parts.
Turpentine	5 parts.
Coal oil	10 parts.

Dissolve the soap in the water, with the aid of heat, add the turpentine, stir until the latter is thoroughly mixed, and finally add the coal oil, continuing the heat and stirring until a homogeneous mixture is obtained.

Directions to go with the above: Wash the parts of the bedstead, let dry, and apply the mixture with a brush to all parts frequented by the bugs. The preparation may also be painted on walls, etc.—*National Druggist.*

GLYCERINE OF IODIDE OF IRON (ED. ROYAL INF.).

Fine iron wire	1 oz.
Iodine	2 oz.
Distilled water	3 oz.
Glycerine	27 oz.

Mix two ounces of glycerine and two ounces of water in a flask, and digest the iodine and iron in the mixture, at first cooling and afterwards heating until the froth becomes white. Then filter into twenty ounces of glycerine, wash the flask, and filter with the remaining water, and make the final volume up to thirty-one fluid ounces with glycerine.—*British and Colonial Druggist.*

HARNESSMAKERS' AND SADDLERS' WAXES.

The yellow wax consists of equal parts of balsam of fir and yellow beeswax. The black consists of 50 parts of balsam of fir and 46 parts of beeswax (yellow) melted together. While melting, stir in 3 parts of linseed oil and 1 part of bone or lamp black.

DRY BRONZE POWDER, FOR USE WITH WATER.

The *Pharmaceutische Centralhalle* gives the following: Rub to a fine powder 1 part of potassium dichromate, and add 65 parts of bronze powder and 40 parts of dextrin. Rub until perfectly smooth, and then put up in water-tight paper, either parchment, waxed, or paraffined. About two drams will make a convenient package. As "directions" for the package, use the following: "Mix only when you are going to use. For use, add an equal amount of water, and rub smooth. Apply with a camel's-hair pencil or soft brush."—*National Druggist.*

CRÈME CELESTE.

The *Revista di Clinica Medica* gives the following formula:

White cerate	80 parts.
Spermaceti	80 parts.
Oil of sweet almond	600 parts.
Glycerin	120 parts.
Distilled water	120 parts.
Borax	5 parts.
Cumarin	0.03 part.
Attar of rose	1 part.
Oil of bergamot	0.50 part.
Essence of orange flower	0.50 part.
Attar of ylang-ylang	0.30 part.
Attar of iris	0.10 part.
Tincture of amber	0.30 part.

Mix. If desired, color with alkanin dissolved in a part of the oil of almond.—*National Druggist.*

Elecampane as an Antiseptic.

According to the *Medical Age*, elecampane is one of the most valuable of modern antiseptic remedies, one that, aside from its powerful effect, has the great advantage of being free from odor. It is aromatic, stimulant, expectorant, emmenagogue, diaphoretic, and tonic to mucous membrane. It has been found of especial use in malaria, tuberculosis, catarrhal diseases, whooping-cough, and chronic bronchitis. One grain of the inulin added to 10,000 of urine will prevent the latter from decomposition. With this evidence it would seem as if it would prove a true bactericide in wasting diseases. Elecampane in the early forties enjoyed much reputation in phthisis, but fell into disuse until the revival of the old contagious views of that disease.

To Distinguish Between Lemon and Orange Peel.

When orange peel is moistened with strong hydrochloric acid, its color changes from yellowish to a rich dark green; lemon rind, similarly treated, retains its hue, or, at most, assumes a dingy, yellowish-brown tint. A convenient and simple chemical test, therefore, which will distinguish between small fragments of lemon and orange peel is to touch them with a glass rod previously dipped in hydrochloric acid. The diluted acid will answer the purpose, but the reaction is slower. A few minutes' exposure, says Mr. E. G. Clayton (*Science Siftings*), to hydrochloric acid gas will effect this change in the pigment of orange peel. The color of lemon rind is unaffected.

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Photographic Notes

Electric Photography.

Following up the Henrich Hertz theory of the similarity of the other waves of light to those of electro-magnetism, except that the latter are larger, Professor Dolbear has shown that electro-magnetic waves can act the part of light in taking photographs, which may thus be produced even when the subject whose picture is desired remains in absolute darkness.

An Intensifier for Negatives Reproducing Lines.

Water	1,000 parts
Iodine	14 parts
Iodide of potassium	27 parts

The negative is allowed to remain in this until entirely yellow. It is thoroughly washed, so that the water running from it is colorless. Afterward the negative is placed in a one per cent. solution of Schlippe's salt rendered alkaline by a little caustic soda.—*Paris Photo.*

Photographic Reproduction of Chalk Drawings.

The observation made in this column, says *The Graphic*, with regard to the closeness with which chalk drawings could be copied in photography, received ample illustration in a case that I only heard of the other day. It seems a drawing made by a notable artist was obtained, and carefully copied on exactly the right kind of paper by means of photography. The imitation was said to be so complete as to almost deceive the artist himself. A good many copies of the print were then obtained; they were all carefully mounted in imitation of the original drawing, and these were all pledged at pawnbrokers in different parts of London for various sums. The majority of them were sold, and the affair was only found out by the artist discovering it in the house of a friend, and pronouncing it to be a photograph.—*Scientific American.*

Brown Ferro-Prussiate Prints.

Ferro-prussiate blue prints can be easily transformed to brown by the following process: The blue print, well washed and dried, is plunged in dilute ammonia for two to four minutes, until it is almost colorless; then rinse and immerse it in a bath of tannic acid, where it is left until it is clear and toned. This operation requires about twelve hours. If, at the end of this time, the color is not sufficiently deep, add to the bath several drops of ammonia, and let the print remain in it a minute or two longer, then rinse it in plenty of water. The prints thus obtained are very pretty, and resemble in color sepia drawings. Here are the formulæ for the different baths employed:

Sensitizing Solution.

Tartrate of iron and potash	15 grams.
Red prussiate of potash	12 grams.
Rain water	250 grams.

Solution to Fade the Print.

Ammonia	100 grams.
Rain water	900 grams.

Solution to give the Brown Tint.

Tannic acid	10 grams.
Rain water	500 grams.

—*American Journal of Photography.*

Professional Models.

The *Photographic News* proposes to induce a number of people, both male and female, big and little, to form an association of models, and after sufficient training to frequent the picturesque and other localities to which photographers are mostly attracted. On a stick, over his shoulder, the male would carry a bundle, and the female a basket on her arm, each containing a number of inexpensive but suitable costumes, and, to prevent misunderstanding, a scale of fees.—*Scientific American.*

Exhibition of Photography.

The Executive Council of the Imperial Institute have announced that a special exhibition of photography in its applications to the arts, sciences, and industries will be held at the Imperial Institute, in connection with the United Kingdom section, during the summer season of 1895. An influential committee of advice has been formed, composed of governors of the Imperial Institute and scientific men of well-known standing who are interested in photography; and sub committees have been appointed in connection with the seven sections of the exhibition, viz.:

Division 1.—The history of photography, including illustrations of early processes, the progressive development of processes, the early processes of photo-mechanical work, and modern photographic literature.

Division 2.—Artistic photography, comprising a thoroughly representative exhibition of all schools, embracing known as well as new works, and illustrations of the present condition of photographic art in the various colonies and in India.

Division 3.—Photography as an industry, demonstrating the apparatus used in photography and the special processes connected with the preparation of lenses, the production of brass fittings, cameras, etc., shown in actual operation; the preparation of dry plates, coating of sensitive media, printing processes, also shown in actual operation; reproduction of pictures, and the production of portraits by daylight and artificial light.

Division 4.—Photography in its applications to industries, such as reproductions having photography as their basis, as applied to illustrated journalism, literature, etc., and industrial applications of photography to ornamentation.

Division 5.—Applications of photography to the sciences, including orthochromatics, optics, stereoscopy, photomicrography, spectroscopy, meteorology, and magnetism, astronomy, automatic recording apparatus, etc.

Division 6.—Applications of photography to educational purposes.

Division 7.—Miscellaneous applications of photography, including applications of photography to architecture and archæology, to engineering, to military and naval purposes, to legal purposes (such as the detection of forgeries), to surveying, cartography, chronography, etc.

Notification of the exhibition will shortly be transmitted to the principal firms engaged in the manufacture of apparatus connected with photography in the United Kingdom. The Governor-General of India, the Governor-General of the Dominion of Canada, and the governors of the various colonies have, by a recent mail, been requested to invite Indian and colonial manufacturers to exhibit.—*British and Colonial Druggist.*

Pharmaceutical Analysis.

SOME SPECIAL TESTS FOR DRUGS AND CHEMICALS.

It is highly essential for every pharmacist to know how to test the articles he deals in as to their purity and freedom from adulterants. It is, further, important that he should not only have the knowledge, but also put it into actual and regular practice. The public now look to the skill and training of the educated chemist for protection from fraud, and expect to find the drugs they purchase from him pure and good. The medical practitioner also entrusts him with the preparation of the means by which he has to combat disease—a position of no slight responsibility. The duty, therefore, lies with every pharmacist to satisfy himself that the drugs and chemicals he uses are free from impurity, and justify the trust reposed in him. The processes included in the following tests have been rendered as simple as possible, so that they may be conducted at any dispensing counter.

ACETUM.—For excess of sulphuric acid, add one grain of chloride of barium to one fluid ounce of vinegar, and filter. The filtrate should not give any further precipitate with chloride of barium. If copper, iron, or lead are present, a black coloration will be found if the vinegar be first neutralized with ammonia, and sulphydrate of ammonium then added. Good malt vinegar should dissolve exactly 18 grains of carbonate of magnesium, and no more.

ARSENIC.—To test for the presence of antimony, add dilute hydrochloric acid and pass H_2S through the solution. If present, an orange precipitate will be thrown out. Heavy mineral bodies, such as baryta or lead, may be detected by

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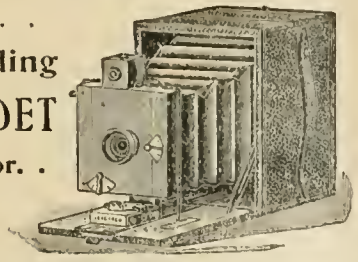

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By CHAS. F. HEEBNER, PH G., PH.M.B.

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Manual of Pharmacy and Pharmaceutical Chemistry.

By CHAS. F. HEEBNER, PH.G., PH.M.B.,

Dean of the Ontario College of Pharmacy, and formerly Instructo in Theory and Practice of Pharmacy in the New York College of Pharmacy.

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igniting a portion in a capsule. Arsenious acid, being volatile, leaves the impurities behind.

Alum.—Alum is sometimes contaminated with iron. To determine this, add excess of caustic potash to a boiling solution. If a reddish-brown precipitate is formed, iron is present. As a confirmatory test, add to a solution a little nitric acid, and boil until the excess of acid is driven off. To a portion of the liquid add sulphocyanide of potassium, and to another portion ferrocyanide of potassium. The former will turn red in color, and in the latter a blue precipitate will be found if iron be present. Commercial sulphate of alum may be tested for sulphate of potash by adding carbonate of ammonia in excess, filtering, concentrating the filtrate, evaporating to dryness, and heating to redness in a platinum crucible. If alkali be present in the sample, a residue will be left in the crucible.

Ammoniacum. — Gum ammoniacum turns a blood-red color on the addition of hypochlorite of lime or soda, and may thus be distinguished from any other resin or gum resin.

Citric Acid.—Add lime water to a cold dilute solution, sufficient to render it slightly alkaline. If a white precipitate at once falls, oxalic acid is present. The presence of tartaric acid may be proved by adding a solution of sulphate of potash. If present, a white crystalline precipitate will be formed.

Chlorate of Potash.—To a solution add nitrate of silver. A white precipitate will be thrown down if any alkaline chloride be present.

Carbonate of Magnesia.—Should be entirely soluble in hydrochloric acid. Shake up a small quantity with water, filter, and concentrate the filtrate. Add a few drops of hydrochloric acid and chloride of barium solution. If a white precipitate is formed, alkaline sulphates are present.

Carmine.—Shake up for some time a weighed quantity with ammonia, wash the precipitate, and dry over a water bath. The impurities will remain.

Cream of Tartar.—Cream of tartar is sometimes contaminated with lime. To test for this, dissolve a small quantity in dilute hydrochloric acid ; if effervescence is caused, add ammonia till the solution becomes slightly alkaline ; next add oxalate of ammonia, allow to stand for eight hours, filter, wash the precipitate (if any), and dry, then ignite, and when cool weigh the residue as lime. A ready test is to dissolve 84 grains of bicarbonate of soda in 2 ounces of water, and add 204 grains of the cream of tartar ; the mixture, after heating, should be neutral to litmus paper. If the sample is of superior quality, the mixture will be acid. For adulteration with barium, dissolve 20 grains of cream of tartar in 1 ounce of distilled water, with heat ; if any remains undissolved, or a precipitate is thrown down on adding a little sulphuric acid, the presence of barium is indicated.

Chloroform.--Chloroform should have a specific gravity of 1.49. It should not bleach nor redden litmus paper. On the addition of nitrate of silver, it should not become turbid or give a white precipitate. Solution of caustic potash should not turn it brown on heating, and it should mix with ether or alcohol. It should not be colored after shaking up with sulphuric acid, and should leave no residue or unpleasant odor after evaporation.

Ether.—The specific gravity of ether should not exceed 0.720. It should be neutral to litmus paper. If it forms an opaque emulsion on shaking up with oil of copaiba, it indicates the presence of water and alcohol. Pure ether should remain clear.

Gums.—Acacia and senegal, with solution of sulphate of iron, give a yellow precipitate. Dextrine gives no precipitate. The former gums give, with subacetate of lead, a white curdy mass, and with tincture of guaiacum a blue color. Tragacanth does not change color on the addition of tincture of guaiacum, and forms a transparent jelly with subacetate of lead.

Glycerine should have a specific gravity about 1.25, should be quite neutral to litmus paper, and its solution should not be affected by nitrate of silver, oxalate of ammonia, or chloride of barium. On the addition of sulphydrate of ammonium, if a black or brown color be formed, the presence of lead, copper, or iron is indicated. Shaken with an equal volume of sulphuric acid, it should be unaffected, or only a very pale straw coloration result, which proves the absence of sugar or dextrine. On heating a small quantity in a platinum dish till the glycerine is driven off, a charred residue will remain if sugar be present, but only a black stain if the glycerine be pure, which burns away without leaving ash when heated to redness.

Guaiacum.—Perchloride of mercury solution poured on guaiacum wood and slightly warmed should produce a bluish green color. Guaiacum resin turns greenish blue on the addition of chloride of lime or chloride of soda, and a solution in rectified spirit strikes a clear blue when applied to the inner surface of a raw potato.

Hops.—Exhaust a weighed quantity of hops by repeated macerations with alcohol ; wash the residue with alcohol, and finally carefully dry at a low temperature, and weigh. The loss should not be less than from 9 to 12 per cent. ; if less, they are deficient in lupulin. To detect if hops have been sulphured, introduce a portion of the sample into a hydrogen apparatus, and pass the gas into a solution of nitro-prusside of sodium. If sulphur is present a purple color will be formed, which, however, quickly fades away.

Hydrocyanic Acid.—(Dufla's test).—To determine the amount of actual hydrocyanic acid in a sample, mix some nitrate of silver with a little ammonia, so that the clear liquid may be slightly acid, then pour it into a weighed portion of the sample of hydrocyanic acid as long as any precipitate is found. Collect the precipitate of cyanide of silver on a small filter, previously dried and weighed at 212° F., and wash the precipitate and filter, and dry again at 212° F., and weigh. 133.9 parts of cyanide of silver represent 27 parts of anhydrous hydrocyanic acid.

Honey.—Honey is often adulterated with glucose and artificial flavorings. Mix the sample with an equal quantity of water, and add strong spirit, stirring constantly till a permanent turbidity is produced. In honey adulterated with glucose, syrup, or dextrine, a heavy gummy deposit will soon form ; with genuine honey but a slight milkiness is produced. Starch and flour are readily detected, as they remain insoluble when the sample is dissolved in cold water or spirit.

Iodide of Potassium.—The chief impurities found in commercial iodide of potassium are iodate, carbonate, and sulphate of potass, chloride of potassium and sodium, sulphide of potassium, and organic matter containing sulphur. Iodate of potass may be detected by adding a small quantity of tartaric or hydrochloric acid, when a deposit of iodine takes place. For determining the presence of carbonate and sulphate of potash, and the alkaline chloride, if in large amount, shake up well with pure alcohol, and these salts will be left undissolved. The chloride may be estimated by precipitating the solution of the sample with excess of nitrate of silver, and adding ammonia to excess. The iodide of silver remains insoluble, while the chloride is dissolved, and can again be precipitated from the filtered liquid by the addition of an excess of nitric acid. Sulphur impurities may be detected by adding to the solution a little sulphuric acid and a small quantity of granulated zinc. Allow the gas evolved to pass over some moist carbonate of lead, which will be blackened if sulphuretted impurities are present.

Lard.—Pure lard should be quite free from taste and smell, and form a perfectly clear liquid when melted by immersing a tube containing it in hot water. If either lime, carbonate of soda, or water has been added, the melted fat will be more or less opaque. By keeping the sample in a molten condition, the water gradually settles out.

Myrrh.—Genuine myrrh, on the addition of nitric acid, forms a transparent, dirty-yellow liquid. *Bdellium indicum* will not dissolve in nitric acid, but becomes soft, and turns whitish and opaque. Filter paper moistened with an alcoholic tincture of myrrh, and then touched with nitric acid, turns a blood-red color, while a strip of paper soaked in a tincture made from *bdellium* or *myrrha indica*, and treated in the same manner, remains yellow or brown. On igniting, good myrrh should not leave more than from 3.5 to 3.8 per cent. of ash.

MENTHOL.—Is occasionally adulterated when moulded into cones, with wax or paraffin, in order to make it hard. To detect this, slowly evaporate a portion of the suspected cone at a low water bath temperature. If either adulterant be present, a fusible residue will be left, which has very little smell.

MUSK.—Genuine musk grains should dissolve in boiling water, not leaving more than 25 per cent. of residue. On incineration it should not leave more than 6 per cent. of ash. It should be soluble in ether, and should be precipitated from a hot solution by acids and acetate of lead, but not by chloride of mercury.

NITRATE OF POTASSIUM.—For the detection of nitrite in nitrate of potash, to a solution of the salt add one or two drops of yellow prussiate of potash, not sufficient to communicate a perceptible yellow tint. A few drops of acetic acid should then be added, and almost immediately, according to the quantity of nitrite present, the liquid will turn a bright golden color. When testing for minute quantities it is best to use two similar flasks, one containing pure water and the other the solution of salt to be examined, and add the reagent to each in exactly the same quantity, placing a sheet of white paper behind each vessel. This may also be used as a test for nitrates by boiling the sample for a short time with clean shavings of lead, and proceeding as above, the absence of nitrites in the substance having been first determined. Lead reduces even the nitrate of potash to nitrite. —(Schæffer's test.)

NITRATE OF SILVER.—Make a solution in water and add hydrochloric acid, filter, and treat the precipitate with excess of ammonia. If it does not entirely dissolve the ammonia, chloride of lead is indicated. Treat the filtrate with H_2S; a brown or black precipitate proves copper or lead present. Filter the liquid, evaporate to dryness, and ignite. A white saline residue indicates the presence of nitrate of potash.

OLIVE OIL.—Its specific gravity should be between .913 and .918 at 60°. For the detection of cotton-seed oil, make a 1 per cent. test solution of nitrate of silver in absolute alcohol. Place 5 c.c. of the suspected oil in a glass flask, add to it 25 c.c. of absolute alcohol and 5 c.c. of the test solution. The flask is then heated in a water bath at 84° C. If there be any cotton-seed oil present the mixture will begin to darken, the most minute quantity serving to discolor, and the tint assumed will depend on the amount of cotton-seed oil present.—(Bechi's test.)

CASTOR OIL.—Should be entirely soluble in one volume of absolute alcohol and in two volumes of rectified spirit. (B.P. tests.) For adulteration with rosin oil, add a few drops of stannic bromide in carbon bisulphide to the suspected sample of oil in the same solvent. If a red or violet color is developed, rosin oil is present in proportion to the rapidity and color produced. As low as 3 or 4 per cent. of rosin oil may thus be detected.—(Renard's test.)

OXALIC ACID.—Organic impurities may be detected by heating a small quantity with sulphuric acid; if pure it will not turn brown or bluish. Pure oxalic acid should leave no residue after heating to redness in a platinum crucible.

PHOSPHORIC ACID.—A white precipitate on the addition of chloride of mercury indicates the presence of phosphorous acid. Arsenic may be detected by passing a current of H_2S through it; and sulphuric and nitric acids by applying the usual tests. Sulphocyanide of potassium gives a red coloration if iron be present.

SOFT PARAFFIN (Vaseline).—Good soft paraffin should be completely volatile when heated on fire, and should not give off any smell of burning fat. When agitated with twice its volume of strong spirit, it should remain practically undissolved. The spirit on testing afterwards should be neither acid nor alkaline.

PODOPHYLLIN.—According to Podwyssotzki, the active constituent of podophyllin is podophyllotoxin, which is present in commercial samples of podophyllin to the extent of from 20 to 30 per cent. This may be estimated by treating about a grain of resin with chloroform in the cold as long as anything is dissolved; the greater part of the chloroform is then driven off by heat, and the remainder of the chloroformic solution is poured into 20 times its volume of light petroleum spirit. The podophyllotoxin separates out, and can be removed, dried, and weighed.

POTASSIUM BROMIDE.—In solution, on being mixed with chlorine (chlorinated lime and HCl will do), then agitated with chloroform, the latter, on falling to the bottom, exhibits a red coloration. A further portion of the solution mixed with mucilage of starch and a drop of an aqueous solution of bromine or chlorine should not give a blue color. The addition of diluted sulphuric acid should not immediately cause a yellow coloration, which indicates the absence of bromate.

QUININE.—Should be entirely soluble in water acidulated with sulphuric acid. It dissolves in pure sulphuric acid with a feeble yellowish tint, and undergoes no further change of color when gently warmed. Twenty-five grains of the freshly-prepared salt should lose 3.8 grains of water by drying at 212° F. Ignited, with free access of air, it should leave no residue.

RHUBARB.—An old test for the quality of rhubarb root is to place two or three drops of oil of aniseed or fennel on a piece of the root and rub on it for a few minutes a little magnesia. If the root be of inferior quality, the spot rubbed will gradually turn salmon color or pink; while if genuine and of good quality, it will remain the usual yellow color.

SALICIN.—For contamination with lead, dissolve a small quantity in water, and add a few drops of sulphydrate of ammonium; if a dark coloration or black precipitate be produced, the presence of lead is indicated. Ten grains of salicin, shaken up with two ounces of ether, and filtered, allowed to evaporate, should leave no residue. On igniting, no ash should be left.

SULPHATE OF IRON.—Test for copper: Boil a small quantity in water with nitric acid, and add ammonia to excess. If copper is present, the liquid will be tinted blue after the precipitate has settled. Alumina is also a frequent impurity. To determine this, add to a solution which has been treated in a like manner with nitric acid an excess of caustic potash, boil and filter; then add ammonium chloride; if alumina be present, a white precipitate will be thrown down on standing.

SULPHATE OF MAGNESIA.—To a solution of the salt add baryta water, then excess of ammonia carbonate. Filter, evaporate the filtrate to dryness and ignite. If sulphate of soda be present, carbonate of soda will remain. If contaminated with iron, sulphydrate of ammonia will give a black precipitate. To test for copper add excess of ammonia, and the liquid will assume a blue color if copper be present.

Of every 10,000 deaths in England, 270 are from apoplexy.

In 1857 the Russian hospitals had 62,000 typhus patients.

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ALUM, in bbls.
ALUM POWDERED, in bbls.
FINEST EPSOM SALTS, in bbls.
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SALTPETRE POWDERED, in casks.
POWDERED HELLEBORE, in bbls.
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WHITE CASTILE SOAP, bars.
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PARIS GREEN, in casks and drums.
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DETROIT, MICH. ESTABLISHED IN 1862. **WINDSOR, ONT.**

CANADIAN DRUGGIST PRICES CURRENT

Corrected to January 10th, 1895.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal	$4 05	$4 25
Methyl	1 90	2 00
ALLSPICE, lb	13	15
Powdered, lb	15	17
ALOIN, oz	40	45
ANODYNE, Hoffman's bot., lbs	50	55
ARROWROOT, Bermuda, lb	45	50
St. Vincent, lb	15	18
BALSAM, Fir, lb	40	45
Copaiba, lb	65	75
Peru, lb	2 50	2 75
Tolu, can or less, lb	65	75
BARK, Barberry, lb	22	25
Bayberry, lb	15	18
Buckthorn, lb	15	17
Canella, lb	15	17
Cascara, Sagrada	25	30
Cascarilla, select, lb	18	20
Cassia, in mats, lb	18	20
Cinchona, red, lb	60	65
Powdered, lb	65	70
Yellow, lb	35	40
Pale, lb	40	45
Elm, selected, lb	20	21
Ground, lb	17	20
Powdered, lb	20	28
Hemlock, crushed, lb	18	20
Oak, white, crushed lb	15	17
Orange peel, bitter, lb	15	16
Prickly ash, lb	35	40
Sassafras, lb	15	16
Soap (quillaya), lb	13	15
Wild cherry, lb	13	15
BEANS, Calabar, lb	45	50
Tonka, lb	1 50	2 75
Vanilla, lb	8 00	10 00
BERRIES, Cubeb, sifted, lb	50	55
powdered, lb	55	60
Juniper, lb	7	10
Ground, lb	12	14
Prickly ash, lb	40	45
BUDS, Balm of Gilead, lb	55	60
Cassia, lb	25	30
BUTTER, Cacao, lb	75	80
CAMPHOR, lb	65	68
CANTHARIDES, Russian, lb	1 40	1 50
Powdered, lb	1 50	1 60
CAPSICUM, lb	25	30
Powdered, lb	$ 30	$ 35
CARBON, Bisulphide, lb	17	18
CARMINE, No. 40, oz	40	50
CASTOR, Fibre, lb	20 00	20 00
CHALK, French, powdered, lb	10	12
Precip., see Calcium, lb	10	12
Prepared, lb	5	6
CHARCOAL, Animal, powd., lb	4	5
Willow, powdered, lb	20	25
CLOVE, lb	25	30
Powdered, lb	30	35
COCHINEAL, S.G., lb	40	45
COLLODION, lb	75	80
Cantharidal, lb	2 50	2 75
CONFECTION, Senna, lb	40	45
Creosote, Wood, lb	2 00	2 50
CUTTLEFISH BONE, lb	25	30
DEXTRINE, lb	10	12
DOVER'S POWDER, lb	1 50	1 60
ERGOT, Spanish, lb	75	80
Powdered, lb	90	1 00
Ergotin, Keith's, oz	2 00	2 10
EXTRACT, Logwood, bulk, lb	13	14
Pounds, lb	14	17
FLOWERS, Arnica, lb	15	20
Calendula, lb	55	60
Chamomile, Roman, lb	30	35
German, lb	40	45
Elder, lb	20	22
Lavender, lb	12	15
Rose, red, French, lb	1 60	2 00
Rosemary, lb	25	30
Saffron, American, lb	75	80
Spanish, Val'a, oz	1 00	1 25
GELATINE, Cooper's, lb	75	80
French, white, lb	35	40
GLYCERINE, lb	14	16
GUARANA	3 00	3 25
Powdered, lb	3 25	3 50
GUM ALOES, Cape, lb	18	20
Barbadoes, lb	30	50
Socotrine, lb	65	70
Asafœtida, lb	40	45
Arabic, 1st, lb	65	70
Powdered, lb	75	85
Sifted sorts, lb	40	45
Sorts, lb	25	30
Benzoin, lb	50	1 00
Catechu, Black, lb	9	20
Gamboge, powdered, lb	1 20	1 25
Guaiac, lb	50	1 00
Powdered, lb	70	75
Kino, true, lb	1 25	
Myrrh, lb	$ 45	$ 48
Powdered, lb	55	60
Opium, lb	4 25	4 50
Powdered, lb	6 00	6 50
Scammony, pure Resin, lb	12 80	13 00
Shellac, lb	45	48
Bleached, lb	45	50
Spruce, true, lb	30	35
Tragacanth, flake, 1st, lb	75	80
Powdered, lb	1 10	1 15
Sorts, lb	45	75
Thus, lb	8	10
HERB, Althea, lb	27	30
Bitterwort, lb	27	30
Burdock, lb	16	18
Boneset, ozs, lb	15	17
Catnip, ozs, lb	17	20
Chiretta, lb	25	30
Coltsfoot, lb	20	38
Feverfew, ozs, lb	53	55
Grindelia robusta, lb	45	50
Hoarhound, ozs., lb	17	20
Jaborandi, lb	45	50
Lemon Balm, lb	38	40
Liverwort, German, lb	38	40
Lobelia, ozs, lb	15	20
Motherwort, ozs, lb	20	22
Mullein, German, lb	17	20
Pennyroyal, ozs, lb	18	20
Peppermint, ozs., lb	21	25
Rue, ozs., lb	30	35
Sage, ozs., lb	18	20
Spearmint, lb	21	25
Thyme, ozs., lb	18	20
Tansy, ozs., lb	15	18
Wormwood, oz	20	22
Yerba Santa, lb	38	44
HONEY, lb	13	15
HOPS, fresh, lb	20	25
INDIGO, Madras, lb	75	80
INSECT POWDER, lb	25	28
ISINGLASS, Brazil, lb	2 00	2 10
Russian, true, lb	6 00	6 50
LEAF, Aconite, lb	25	30
Bay, lb	18	20
Belladonna, lb	25	30
Buchu, long, lb	50	55
Short, lb	20	22
Coca, lb	35	40
Digitalis, lb	15	20
Eucalyptus, lb	18	20
Hyoscyamus	20	25
Matico, lb	70	75

Senna, Alexandria, lb	$ 25	$ 30
Tinnevelly, lb	15	25
Stramonium, lb	20	25
Uva Ursi, lb	15	18
LEECHES, Swedish, doz	1 00	1 10
LICORICE, Solazzi	45	50
Pignatelli	35	40
Grasso	30	35
Y & S—Sticks, 6 to 1 lb., per lb.	27	30
" Purity, 100 sticks in box	75	75
" Purity, 200 sticks in box	1 50	1 50
" Acme Pellets, 5 lb. tins	2 00	2 00
" Lozenges, 5 lb. tins	1 50	1 75
" Tar, Licorice, and Tolu, 5 lb. tins	2 00	2 00
LUPULIN, oz	30	35
LYCOPODIUM, lb	70	80
MACE, lb	1 20	1 25
MANNA, lb	1 60	1 75
Moss, Iceland, lb	9	10
Irish, lb	9	10
MUSK, Tonquin, oz	46 00	50 00
NUTGALLS, lb	21	25
Powdered, lb	25	30
NUTMEGS, lb	1 00	1 10
NUX VOMICA, lb	10	12
Powdered, lb	25	27
OAKUM, lb	12	15
OINTMENT, Merc., lb. ½ and ½	70	75
Citrine, lb	45	50
PARALDEHYDE, oz	15	18
PEPPER, black, lb	22	25
Powdered, lb	25	30
PITCH, black, lb	3	4
Bergundy, true, lb	10	12
PLASTER, Calcined, bbl. cash	2 25	3 25
Adhesive, yd	12	13
Belladonna, lb	65	70
Galbanum Comp., lb	80	85
Lead, lb	25	30
POPPY HEADS, per 100	1 00	1 10
ROSIN, Common, lb	2½	3
White, lb	3½	4
RESORCIN, white, oz	25	30
ROCHELLE SALT, lb	25	28
ROOT, Aconite, lb	22	25
Althea, cut, lb	30	35
Belladonna, lb	25	30
Blood, lb	15	16
Bitter, lb	27	30
Blackberry, lb	15	18
Burdock, crushed, lb	18	20
Calamus, sliced, white, lb	20	25
Canada Snake, lb	30	35
Cohosh, black, lb	15	20
Colchicum, lb	40	45
Columbo, lb	20	22
Powdered, lb	25	30
Coltsfoot, lb	38	40
Comfrey, crushed, lb	20	25
Curcuma, powdered, lb	13	14
Dandelion, lb	15	18
Elecampane, lb	15	20
Galangal, lb	15	18
Gelsemium, lb	22	25
Gentian or Genitan, lb	9	10
Ground, lb	10	12
Powdered, lb	13	15
Ginger, African, lb	18	20
Po., lb	20	22
Jamaica, blchd., lb	27	30
Po., lb	30	35
Ginseng, lb	3 00	3 25
Golden Seal, lb	75	80
Gold Thread, lb	90	95
Hellebore, white, powd., lb	12	15
Indian Hemp	18	20
Ipecac, lb	1 30	1 50
Powdered, lb	1 60	1 70
Jalap, lb	55	60
Powdered, lb	60	65
Kava Kava, lb	40	90
Licorice, lb	12	15
Powdered, lb	13	15
Mandrake, lb	13	18
Masterwort, lb	16	40
Orris, Florentine, lb	30	35
Powdered, lb	40	45
Pareira Brava, true, lb	40	45
Pink, lb	75	80
Parsley, lb	30	35
Pleurisy, lb	20	25
Poke, lb	15	18
Queen of the Meadow, lb	$ 18	$ 20
Rhatany, lb	20	30
Rhubarb, lb	75	2 50
Sarsaparilla, Hond, lb	40	45
Cut, lb	50	55
Senega, lb	55	65
Squill, lb	13	15
Stillingia, lb	22	25
Powdered, lb	25	27
Unicorn, lb	38	40
Valerian, English, lb. true	20	25
Virginia, Snake, lb	40	45
Yellow Dock, lb	15	18
RUM, Bay, gal	2 25	2 50
Essence, lb	3 00	3 25
SACCHARIN, oz	1 25	1 50
SEED, Anise, Italian, sifted, lb	13	15
Star, lb	35	40
Burdock, lb	30	35
Canary, bag or less, lb	5	6
Caraway, lb	10	13
Cardamom, lb	1 25	1 50
Celery	30	35
Colchicum	50	60
Coriander, lb	10	12
Cumin, lb	15	20
Fennel, lb	15	17
Fenugreek, powdered, lb	7	9
Flax, cleaned, lb	3½	4
Ground, lb	4	5
Hemp, lb	5	6
Mustard, white, lb	11	12
Powdered, lb	15	20
Pumpkin	25	30
Quince, lb	65	70
Rape, lb	8	9
Strophanthus, oz	50	55
Worm, lb	22	25
SEIDLITZ MIXTURE, lb	25	30
SOAP, Castile, Mottled, pure, lb	10	12
White, Conti's, lb	15	16
Powdered, lb	25	35
Green (Sapo Viridis), lb	15	25
SPERMACETI, lb	55	60
TURPENTINE, Chian, oz	75	80
Venice, lb	10	12
WAX, White, lb	50	75
Yellow	40	45
WOOD, Guaiac, rasped	5	6
Quassia chips, lb	10	12
Red Saunders, ground, lb	5	6
Santal, ground, lb	5	6

CHEMICALS.

ACID, Acetic, lb	12	13
Glacial, lb	45	50
Benzoic, English, oz	20	25
German, oz	10	12
Boracic, lb	15	16
Carbolic Crystals, lb	18	25
Calvert's No. 1, lb	2 10	2 15
No. 2, lb	1 35	1 40
Citric, lb	50	55
Gallic, oz	10	12
Hydrobromic, diluted, lb	30	35
Hydrocyanic, diluted, oz. bottles doz	1 50	1 60
Lactic, concentrated, oz	22	25
Muriatic, lb	3	5
Chem, pure, lb	18	20
Nitric, lb	10½	13
Chem. pure, lb	25	30
Oleic, purified, lb	75	80
Oxalic, lb	12	13
Phosphoric, glacial, lb	1 00	1 10
Dilute, lb	13	17
Pyrogallic, oz	35	38
Salicylic, white, lb	1 60	1 80
Sulphuric, carboy, lb	2½	2¾
Bottles, lb	5	6
Chem. pure, lb	18	20
Tannic, lb	90	1 10
Tartaric, powdered, lb	30	32
ACETANILID, lb	90	1 00
ACONITINE, grain	4	5
ALUM, cryst., lb	1¾	3
Powdered, lb	3	4
AMMONIA, Liquor, lb., .880	10	12
AMMONIUM, Bromide, lb	65	75
Carbonate, lb	14	15
Iodide, oz	35	40
Nitrate, crystals, lb	40	45
Muriate, lb	12	16
Valerianate, oz	$ 55	$ 60
AMYL, Nitrite, oz	16	18
ANTINERVIN, oz	85	00
ANTIKAMNIA	1 25	1 30
ANTIPYRIN, oz	1 00	1 10
ARISTOL, oz	1 85	2 00
ARSENIC, Donovan's sol., lb	25	30
Fowler's sol., lb	13	15
Iodide, oz	50	55
White, lb	6	7
ATROPINE, Sulp. in ⅛ ozs. 80c., oz	5 00	5 00
BISMUTH, Ammonia-citrate, oz	35	40
Iodide, oz	50	55
Salicylate, oz	30	35
Subcarbonate, lb	2 25	2 40
Subnitrate, lb	2 00	2 10
BORAX, lb	9	10
Powdered, lb	10	11
BROMINE, oz	8	13
CADMIUM, Bromide, oz	20	25
Iodide, oz	45	50
CAFFEINE, oz	50	55
Citrate, oz	50	55
CALCIUM, Hypophosphite, lb	1 50	1 60
Iodide, oz	95	1 00
Phosphate, precip., lb	35	38
Sulphide, oz	5	6
CERIUM, Oxalate, oz	10	12
CHINOIDINE, oz	15	18
CHLORAL, Hydrate, lb	1 00	1 10
Croton, oz	75	80
CHLOROFORM, lb	60	1 90
CINCHONINE, sulphate, oz	25	30
CINCHONIDINE, Sulph., oz	15	20
COCAINE, Mur., oz	5 75	7 00
CODEIA, ½ oz	1 00	1 10
COLLODION, lb	65	70
COPPER, Sulph., (Blue Vitrol) lb	6	7
Iodide, oz	65	70
COPPERAS, lb	1	3
DIURETIN, oz	1 60	1 65
ETHER, Acetic, lb	75	80
Sulphuric, lb	40	50
EXALGINE, oz	1 00	1 10
HYOSCYAMINE, Sulp., crystals, gr.	25	30
IODINE, lb	4 75	5 50
IODOFORM, lb	6 00	7 00
IODOL, oz	1 40	1 50
IRON, by Hydrogen	80	85
Carbonate, Precip., lb	15	16
Sacch., lb	30	35
Chloride, lb	45	55
Sol., lb	13	16
Citrate, U.S.P., lb	90	1 00
And Ammon., lb	70	75
And Quinine, lb	1 50	3 00
Quin. and Stry., oz	18	30
And Strychnine, oz	13	15
Dialyzed, Solution, lb	50	55
Ferrocyonide, lb	55	60
Hypophosphites, oz	25	30
Iodide, oz	40	45
Syrup, lb	40	45
Lactate, oz	5	6
Pernitrate, solution, lb	15	16
Phosphate scales, lb	1 25	1 30
Sulphate, pure, lb	7	9
Exsiccated, lb	8	10
And Potass.-Tartrate, lb	80	85
And Ammon Tartrate, lb	80	85
LEAD, Acetate, white, lb	13	15
Carbonate, lb	7	8
Iodide, oz	35	40
Red, lb	7	9
LIME, Chlorinated, bulk, lb	4	5
In packages, lb	6	7
LITHIUM, Bromide, oz	30	35
Carbonate, oz	30	35
Citrate, oz	25	30
Iodide, oz	50	55
Salicylate, oz	35	40
MAGNESIUM, Calc., lb	55	60
Carbonate, lb	18	20
Citrate, gran., lb	35	40
Sulph. (Epsom salt), lb	1¾	3
MANGANESE, Black Oxide, lb	5	7
MENTHOL, oz	55	66
MERCURY, lb	75	80
Ammon (White Precip.)	1 25	1 30
Chloride, Corrosive, lb	1 00	1 10
Calomel, lb	1 00	1 10
With Chalk, lb	60	65

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the *special consideration* of the Business Notices.

Read the list of text-books advertised by P. Blakiston, Sons & Co., of Philadelphia, in this issue.

We call attention to the advertisement of E. J. Hussey & Co. in this issue of the new ladies' syringe for which Lyman, Knox & Co., Montreal and Toronto, are agents for Canada.

Mr. G. Elmendorf, of Elmira, N.Y., when in Toronto a short time ago, appointed the Canadian Specialty Co. Dominion agents for his Tar Gum, which has already made a good reputation for itself in the States, and, in fact, they have been working day and night to supply the demand. The Tar Gum is put up in attractive five-cent packages, containing five pieces each, and twenty packages in a paper box, with advertising matter. See advertisement.

A very handsomely gotten up catalogue giving a list of the non-secret preparations manufactured by the house of Frederick Stearns & Co. has just been received by us. It is a copy of their very recent issue, and when our readers send for one, as we would advise them to do, ask for "Catalogue '94." Before turning to the inside pages one is attracted by the artistic design of the outside cover, which is lithographed in blue and white, and bears a fine cut of their extensive laboratory in Detroit. The first thing that catches the eye on the inside is their introductory page. Here Messrs. Stearns & Co. briefly but clearly express their views on the non-secret question, which idea they introduced in 1876 to meet a demand that existed, and always will exist. They claim for their non-secret preparations a distinct and unique position, that of household remedies of open composition, carefully and accurately compounded from the best materials, sold on their own merits, and not intended to replace or substitute any remedies made by others for similar purposes. The arrangement adopted throughout the catalogue itself is a model one, and exceedingly convenient for reference. Each preparation is to be found under its proper heading, and in regular order are given a list of the diseases or ailments for which it is intended to be used, its formula in full, the dosage, and a description of each package, including the size, style of wrapper, etc. The price to the druggist, as well as the retail price, with the percentage of profit to be made on the sale of each article, follows, the whole concluding with a few explanatory notes, giving further particulars regarding the preparation. As the description of almost every preparation is accompanied by an illustrative cut, showing the style of the finished package, the druggist is enabled to get an extremely clear idea of each remedy listed.

A Great Canadian Wine Firm.

Canada has made great strides in wine-making since 1866. At that date little thought was given to the manufacture of wines in Canada. Its climate was considered too cold and unfit for vine-growing. In that year a company of gentlemen from Kentucky, who had been engaged in vine-growing in that state, feeling sore over the results of the war, learned of the mild and salubrious climate of Pelee island, in Canadian territory, only six miles north of Kelly's island, then considered the home of the Catawba grape, removed to that island and established the first grape vineyard in Canada. Five years afterward Captain J. S. Hamilton, of Brantford, took an interest in the company, and through his tact and push, combined with the high class of wines manufactured, made Pelee island wines a household name throughout the Dominion of Canada. They are to be found on the wine list of every first-class hotel from Halifax in the east to Vancouver in the west. In 1889 the Pelee Island Wine and Vineyards Co., Limited, was established, and Captain Hamilton was elected president. He still holds that position, practically controlling the stock, and the company's brands of dry and sweet Catawba, St. Augustine, Isabella, and claret, are creditable alike to the company and Canada. The company's special claret, now on the market, is a wine of 1891 vintage, known as "Chateau Pelee Medoc," has a large sale in Canada, and can be obtained from leading wine merchants everywhere in Ontario at $3.75 a case. In the lower provinces, where E. G. Scovil, of St. John, N.B., has the agency, $1 a case is added, to pay freight charges. In 1891 a brandy distillery was established on the island, and is now being put on the market under the brand "J. S. Hamilton & Co., Cognac." The purity and high quality of the brandy already commands an extensive sale, and connoisseurs state that few French brandies equal it in quality.—Toronto *Empire*.

Books and Magazines.

Frank Leslie's Popular Monthly for January, just out, is really a holiday number, with regard both to the character of its reading matter and its richness in illustration. The leading article, "St. Andrews and Andrew Lang," by Mrs. Leicester Addis, is a charming account of the university career and literary life of this versatile author, also of the quaint little Scotch city of his *alma mater*, where the now faddish game of golf has been played on its native links ever since the middle ages. "Chiming Bells," a full-page engraving of Boutigny's picture of the death of Marshal Lannes at the battle of Essling, furnishes the motive for some interesting historical pages about Napoleon and Alexander I. of Russia.

Girls who like to read about marriage—and what girl does not?—should buy a copy of the January *Ladies' Home Journal* and read the excellent marriage article which Mrs. Burton Harrison has written under the title of "Heigh Ho! for a Husband." Edward Bellamy sketches, in his own way, what he believes a "Christmas in the Year 2000" will be like. Other articles there are—some twenty odd of them—all good and wise, making this issue of the *Journal* one of the most evenly interesting which the editors have made. No magazine is certainly better worth its price of ten cents. The Curtis Publishing Company, of Philadelphia, issue it.

The relation which price bears to quality in literature is made obscure by the Christmas *Cosmopolitan*. Stories by Rudyard Kipling, Wm. Dean Howells, Mrs. Spencer Trask, Mrs. Burton Harrison, and Albion W. Tourgée, are interspersed with poetry by Sir Edwin Arnold, Edmund Clarence Steadman, and James Whitcomb Riley, while through the number are scattered illustrations by such famous artists as Remington, Toché, Reinhart, Turner, Van Schaick, Gibson, and Stevens. A series of portraits of beautiful women of society illustrate an article on "The Relations of Photography to Art"; a travel article by Napoleon Ney, grandson of the famous Field Marshal; one of the series of "Great Passions of History," to which Froude and Gosse have already contributed, and half a dozen others equally interesting, go to make up the attractions of the number. The *Cosmopolitan* people say: "We might charge you more for this number, but, in all frankness, could we give you better material, better illustrated, if we charged you a dollar a copy?"

It has been generally understood for some time past that some change was being made in the control of the *Empire*, and in a recent issue announcement was made that a syndicate of wealthy and influential men had secured a controlling interest, with the intention of taking an active part in its publication and management. The syndicate is composed of:—W. R. Brock, Esq., of W. R. Brock & Co., Pres. Canada General Electric Co; Hon. Senator Sanford, Pres. Sanford Manufacturing Co.; Hon. Sir Frank Smith, Vice-Pres. Dominion Bank; Thos. Long, Esq., Pres. Great Northern Transit Co.; Col. John I. Davidson, of Davidson & Hay, Vice-Pres. Bank of Commerce; Warring Kennedy, Esq., of Samson, Kennedy & Co., Mayor of Toronto; H. Cargill, M.P., of Cargill; A. F. Gault, of Gault Bros., Montreal, Pres. Dominion Cotton Mills Co.; D. Morrice, of D. Morrice, Sons & Co., Montreal; R. A. Lucas, of Lucas, Steele & Bristol, Hamilton; Frank J. Phillips, Pres. Cobban Manufacturing Co. and Consolidated Plate Glass Co.; James Murray, Esq., St. Catharines; Frank Turner, C.E., Toronto; H. J. Scott, Q.C., Toronto; D. Creighton, Publisher, Toronto. This is undoubtedly the strongest syndicate ever formed in connection with a paper in Canada.

Iodide, Proto, oz	$ 35	$ 40
Bin., oz	25	30
Oxide, Red, lb	1 15	1 20
Pill (Blue Mass), lb	70	75
MILK SUGAR, powdered, lb	30	35
MORPHINE, Acetate, oz	2 00	2 10
Muriate, oz	2 00	2 10
Sulphate, oz	2 00	2 10
PEPSIN, Saccharated, oz	35	40
PHENACETINE, oz	35	38
PILOCARPINE, Muriate, grain	20	22
PIPERIN, oz	1 00	1 10
PHOSPHORUS, lb	90	1 10
POTASSA, Caustic, white, lb	55	60
POTASSIUM, Acetate, lb	35	40
Bicarbonate, lb	15	17
Bichromate, lb	14	15
Bitrat (Cream Tart.), lb	22	25
Bromide, lb	55	60
Carbonate, lb	12	13
Chlorate, Eng., lb	18	20
Powdered, lb	20	22
Citrate, lb	70	75
Cyanide, lb	40	50
Hypophosphites, oz	10	12
Iodide, lb	4 00	4 10
Nitrate, gran, lb	8	10
Permanganate, lb	40	45
Prussiate, Red, lb	50	55
Yellow, lb	32	35
And Sod. Tartrate, lb	25	30
Sulphuret, lb	25	30
PROPLYLAMINE, oz	35	46
QUININE, Sulph, bulk	30	32
Ozs., oz	35	38
QUINIDINE, Sulphate, ozs., oz	16	20
SALICIN, lb	3 75	4 00
SANTONIN, oz	20	22
SILVER, Nitrate, cryst, oz	90	1 00
Fused, oz	1 00	1 10
SODIUM, Acetate, lb	30	35
Bicarbonate, kgs., lb	2 75	3 00
Bromide, lb	63	65
Carbonate, lb	3	6
Hypophosphite, oz	10	12
Hyposulphite, lb	3	6
Iodide, oz	$ 40	$ 43
Salicylate, lb	1 75	1 80
Sulphate, lb	2	5
Sulphite, lb	8	10
SOMNAL, oz	85	00
SPIRIT NITRE, lb	35	65
STRONTIUM, Nitrate, lb	18	20
STRYCHNINE, crystals, oz	1 00	1 10
SULFONAL, oz	34	35
SULPHUR, Flowers of, lb	2½	4
Pure precipitated, lb	13	20
TARTAR EMETIC, lb	50	55
THYMOL (Thymic acid), oz	55	60
VERATRINE, oz	2 00	2 10
ZINC, Acetate, lb	70	75
Carbonate lb	25	30
Chloride, granular, oz	13	15
Iodide, oz	60	65
Oxide, lb	13	60
Sulphate, lb	9	11
Valerianate, oz	25	30
ESSENTIAL OILS.		
OIL, Almond, bitter, oz	75	80
Sweet, lb	50	60
Amber, crude, lb	40	45
Rec't, lb	60	65
Anise, lb	3 00	3 25
Bay, oz	50	60
Bergamot, lb	3 75	4 00
Cade, lb	90	1 00
Cajuput, lb	1 60	1 70
Capsicum, oz	60	65
Caraway, lb	2 75	3 00
Cassia, lb	1 75	1 80
Cedar	55	85
Cinnamon, Ceylon, oz	2 75	3 00
Citronelle, lb	80	85
Clove, lb	1 00	1 10
Copaiba, lb	1 75	2 00
Croton, lb	1 50	1 75
Cubeb, lb	3 00	3 25
Cumin, lb	5 50	6 00
Erigeron, oz	20	25
Eucalyptus, lb	1 50	1 75
Fennel, lb	1 60	1 75
Geranium, oz	$1 75	$1 80
Rose, lb	3 20	3 50
Juniper berries (English), lb	4 50	5 00
Wood, lb	70	75
Lavender, Chiris. Fleur, lb	3 00	3 50
Garden, lb	1 50	1 75
Lemon, lb	2 00	2 10
Lemongrass, lb	1 50	1 60
Mustard, Essential, oz	60	65
Neroli, oz	4 25	4 50
Orange, lb	2 75	3 00
Sweet, lb	2 75	3 00
Origanum, lb	65	70
Patchouli, oz	80	85
Pennyroyal, lb	2 50	2 75
Peppermint, lb	4 25	4 50
Pimento, lb	2 60	2 75
Rhodium, oz	80	85
Rose, oz	7 50	11 00
Rosemary, lb	70	75
Rue, oz	25	30
Sandalwood, lb	5 50	7 50
Sassafras, lb	75	80
Savin, lb	1 60	1 75
Spearmint, lb	3 75	4 00
Spruce, lb	65	70
Tansy, lb	4 25	4 50
Thyme, white, lb	1 80	1 90
Wintergreen, lb	2 75	3 00
Wormseed, lb	3 50	3 75
Wormwood, lb	4 25	4 50
FIXED OILS.		
CASTOR, lb	9	11
COD LIVER, N.F., gal	1 15	1 25
Norwegian, gal	1 50	1 60
COTTONSEED, gal	1 10	1 20
LARD, gal	90	1 00
LINSEED, boiled, gal	60	63
Raw, gal	58	61
NEATSFOOT, gal	1 00	1 10
OLIVE, gal	1 30	1 35
Salad, gal	2 25	2 40
PALM, lb	12	13
SPERM, gal	1 75	1 80
TURPENTINE, gal	60	65

The Standard Brands.
MILLIONS OF EACH BRAND Sold Annually.
'Cable Extra' 'El Padre' 'Mungo' and 'Madre e'Hijo'
S. DAVIS & SONS MONTREAL, P.Q.

"DERBY PLUG," 5 and 10 cts., "THE SMOKERS' IDEAL," "DERBY," "ATHLETE" CIGARETTES, ARE THE BEST.

D. RITCHIE & CO., - - Montreal.

Drug Reports.

Canada.

The report of trade during holiday times from retail druggists has been very good, many doing much better than expected. The demand for expensive goods has been light, but perfumery and general sundries have sold well. In these hard times people get intensely practical in Christmas gifts, as one druggist reports sales of patent medicines for that purpose.

There are no important changes in prices to note, gum arabics tending higher.

Sulfonal has advanced; no particulars of it yet.

Caffeine still high on account of scarcity.

Tartaric acid easier.

Norway cod-liver oil has again advanced.

The new duty will advance price of salad oils.

Opium continues firm. The demand is small and stocks reported very large, but the reports of a proposed combination keep the price up.

Linseed Oil.

The situation in linseed oil seems a little stronger. Some of the American crushers who, a couple of weeks ago, were anxious to sell in one or two carload lots at 53 to 54c. have declined bids at those figures for much larger quantities during the past few days. It is claimed that the only reason oil does not advance as a result of the strong statistical position is that the import prices at present will not admit of it. On the other hand, English crushers, having disposed of their surplus stock of seed, have no oil to spare for this market, and, if they had, American consumers would not give it the preference, even at 1 to 2c. below the cost of the domestic product, because of its generally inferior quality and the unsatisfactory methods of packing followed by the English crushers.—*Journal of Commerce.*

A New Surgical Dressing.

Kikusi, a surgeon of Tokio, Japan, has called attention to a novel and what promises to be a very important article of surgical dressing. It is a form of charcoal derived from burning straw in a smouldering fire, or so arranged that the supply of air is insufficient for complete combustion. The little stalks of charcoal thus prepared are said to be highly hygroscopic, and to make a wonderfully cheap and efficient dressing for wounds. It may be applied direetly, or enclosed in little linen or cotton bags.—*National Druggist.*

Japanese camphor can now be had in compressed cakes of two-ounce weight.

Quinine and uranium chloride is a yellow, crystalline powder, soluble in water.

Caffeine oxalate is a true salt, occurring as a white crystalline powder, soluble in water and alcohol.

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

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Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

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20 Bay St. TORONTO, ONT.

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CONTENTS.

Counsel the Council.
Important Articles.
DRUG CLERKS' COLUMN.—Drug Clerks' Register.
CORRESPONDENCE.—Answers to Correspondents.
British Columbia Notes.
TRADE NOTES.
Pharmaceutical Association of the Province of Quebec.
An Elegant and Brilliant French Polish.
Pharmacy in England.
Practical Hints on Pharmacy.
Pharmaceutical Analysis.
Local Remedy for Diphtheria.
Oil Emulsions.
The Examination of Urine.
EDITORIAL.—Publisher's Notices. Exchange of Ideas. The Result of Co-operation.
Montreal Notes.
Ontario College of Pharmacy Council Meeting.
Formula Wanted.
To Meet Cutting in Prices.
Little Things.
Medical Practitioners in Austria.
Let Us Reason Together.
A Warning Cork for a Poison Bottle.
Tablet Triturates.
The Passing of the Tablet Fad.
Origin of the Term Anæsthetic.
Doctor Ridden.
FORMULARY.
Frigotherapy.
Tablets of Wine.
PHOTOGRAPHIC NOTES.
An Enterprising Japanese Pharmacist.
PHARMACEUTICAL NOTES.
Reactions of Phenacetine.
Nitropentaerythrite and a Smokeless Explosive.
The Spanish Cork Industry.
Details That Will Take Care of Themselves.
BUSINESS NOTICES.
BOOKS AND MAGAZINES.
DRUG REPORTS.

Sewing up wounds by an electrical machine is one of the latest advances in surgical technique.

Counsel the Council.

If those who sometimes cavil because they imagine the Council of the Ontario College does not perform reasonably effective work had a clearer insight into the difficulties constantly standing or being put in the way of those acting on their behalf, they would be more willing to offer counsel than criticism.

The council is composed of druggists whose interests are identical with the interests of their confrères. They are assuredly anxious to protect themselves, and must protect all other druggists in doing so. They do not receive any recompense for their services, yet from the lessons of the past they naturally expect considerable adverse criticism and condemnation. They feel that when outside tradesmen become their commercial enemies, those inside should be their friends. They know well that the critic who is not in the council would be in a reverse position were he in it, and they must often feel that their efforts on behalf of their fellows are so ill-requited as to make them wish they never had anything to do with it.

Those who have the general interests of the trade at heart must have realized during the past two or three years that conditions of trade are rapidly changing, and that the change, so far, has not been in their interests. The sentiment of the country is being acted upon in such a manner as to lessen the position of bodies possessing incorporate legislative powers, and under such circumstances we are obliged to submit. While doing so, however, we would fall far short of our duty to ourselves and to one another if we failed to strive unitedly to bring about a betterment of conditions over which we can exercise some influence. Any large body of individuals, united together with a common, definite object in view, can accomplish much if they will exercise their influence persistently and judiciously. The tendency of the day is to combinations; and the druggist of to-day is threatened from just such a source, and will ultimately have to meet the difficulty upon equal terms. The council of our college is the executive body through which we can act, if we only advise the course to pursue. Legislation is temporarily in abeyance, and of necessity must remain so. The only hope lies in commercial action—the buying and selling of goods which can be profitably handled and fairly well controlled; the pushing of lines of trade which our location and circumstances will enable us to handle to advantage; the cutting off from our business connection those houses which supply us and betray us at the same time; the circulation amongst ourselves of such information as will enable us to act unitedly and decisively when occasion requires it, and the protection of our own trade as far as possible against the licensing of drug businesses improperly run under the name of a practising physician. All these matters might be regulated under control of council by the appointment of a commercial committee whose duty would be determined by the extent and scope of the work which would devolve upon it.

This is a subject in which we are all interested. We may not all see alike as to a solution of the question, and, if there are others who desire to present their views, we shall be glad, indeed, to hear from them in another issue.

Important Articles.

Analytical chemistry is playing a most important part in the world of science, and the practical pharmacist who would aspire to keep in the front of his profession must devote himself to a study of it in all its bearings.

This month we give our readers the conclusion of an article taken from the *British and Colonial Druggist* entitled "Pharmaceutical Analysis," and also from the same source one on "The Examination of Urine." Next month will be given a paper on "The Bacteriological Examination of Water."

Drug Clerks' Column.

We have received a very interesting set of rules for the guidance of the dispensing clerk from T. W. Richardson, in the employ of Mr. D'Avignon, of Windsor. They will appear in our next issue, and those intending to compete will require to have copy forward for publication at the same time.

We are confident that there are many young men who could furnish a set of rules which would be of very great interest and use to our readers, and we shall be most happy to publish such if sent, and to give credit, as fairly as possible, to whom it is due.

Drug Clerks' Register.

Name.	Employee.	Address.
John P. Hennessey		Hamilton, Ont.
W. S. Scheak	H. S. Case	" "
A. G. Cornyn	H. S. Case	" "

Correspondence.

Editor of the CANADIAN DRUGGIST.

DEAR SIR,—I have had some trouble of late when buying liquids by finding what seems to me to be a shortage in the measure. As liquids are supposed to be sold by the imperial measure, I contend that the pint or gallon is one-quarter larger than the old or wine measure, thusly, old pint, 16 ounces. One-quarter of that —4 ounces—added to 16 ounces, makes one imperial pint, or 20 ounces. Then a pair—8 wine pints—make a wine gallon. Add one-quarter gallon, or 2 pints, to make the imperial gallon—160 ounces.

I also contend that to reduce an imperial pint to a wine pint deduct one-fifth —20 ounces imperial pint, 4 ounces would be one-fifth of 20, therefore one-fifth of 20 being 4, and that one-fifth, or 4 ounces, being taken from 20 will surely leave 16 ounces.

About five weeks ago I sent two tins away to be filled. Both came back full.

I keep on hand a *most accurately* measured Winchester. It was measured by one of Whitall, Tatum & Co.'s 8-ounce glass measures up to the 8-ounce mark 10 times, so I measured the contents of one tin. It held only 720 ounces.

If 20 ounces make a pint (B.P., page xxi.), 80 ounces ought to make one-half gallon, and 10 one-half gallons ought to make 800 ounces; but I only got 720 ounces from each tin, and was charged with *ten* gallons, although according to B.P. measurement I only got *nine* gallons. I reported it to the party I got it from, and, although I explained it, they insisted that the tins held *five* gallons each *imperial* measure.

I would be much obliged if you would kindly let me know through your DRUGGIST if the stand I have taken is *right* or *wrong*, and you will greatly oblige me.

1. How many ounces should there be in an imperial pint?

2. How many imperial pints should there be in an imperial gallon?

3. How many ounces should there be in an imperial gallon?

5. When changing a wine pint into an imperial pint, is not one-quarter (or 4 ounces) added?

4. When changing an imperial pint into a wine measure, is not one-fifth (or 4 ounces) deducted from 20 ounces, thus leaving 16 ounces?

Yours truly, DRUGS.

ANSWER.

The writer, while correct in some respects, is entirely at fault in respect to measurement by the process he adopted.

He apparently took for granted that a fluid ounce was the same, whether indicated on a graduate manufactured in the United States or in Great Britain, while, in fact, they are not.

The grain by weight doesn't vary, but the minim does. See below:

1 minim B.P. is equal to 0.91 grain.

1 minim U.S.P. is equal to 0.94 grain.

1 minim B.P. is equal to 0.96 minim U.S.P.

1 minim U.S.P. is equal to 1.04 minims B.P.

So it will clearly be seen that while there are 60 minims in ʒi. in both cases, and 480 minims in ℥i., that the quantity of fluid in the respective ounce measures of the different countries must vary, and, if in ounces, so in pints and gallons.

The variation in the ten-gallon quantity spoken of will, therefore, be about 64 ounces, or within 4 ounces of the quantity he claims to have lost.

Answers to Correspondents.

J.A.A. asks for formulæ for Pil Cochia and Blackberry Brandy.

PIL COCHIA.

R.	Ext. Colocynth Comp.	
	Aloes	āā gr. x.
	Potass. Sulph.	
	P. Cambogia	
	P. Scammon	āā gr. v.
M. ft.	Massa et div. in pil.	No. x.

BLACKBERRY BRANDY.

R.	Cassia	¼ oz.
	Cloves	¼ oz.
	Mace	¼ oz.
	Cardamom seeds	1 dr.

Add this to 16 lbs. of blackberries mashed and 5 gallons of 95 per cent. alcohol. Macerate for two weeks. Press it and then add 10 lbs. of sugar, dissolved in 3½ gallons of water, and filter the product.

British Columbia Notes.

It is rather late in the day to refer to the matter, but seldom has there been such an evidence of enterprise as was here this last Christmas on the part of the druggists. The displays were excellent. A new idea, and a triumph of the electrician's skill, was introduced in placing a number of artificial budding flowers among the displayed fancy goods, the buds being prettily colored electric lights. Business here during Christmas was very good; with some stores the cash sales of Christmas eve exceeded those of Christmas eve, 1893, by 25 per cent. and 50 per cent.

January has been enlivened by the departure of the majority of the sealing schooners, and the druggists have been helped by the stocking up of the medicine chests, etc. Now the quietness may be felt by almost every one for a month or so. The weather continues open, and no snow since January 4th, 1895.

The Provincial Legislature is now in session. Among other bills is a bill to amend the Pharmacy Act, 1891. Up to time of writing, this bill has had its second reading. It provides for a third class of persons, to be known as "certified clerks"; stipulates that only certificates of examination equal in standing to the British Columbia Pharmaceutical Association Licentiate Examination shall be accepted in lieu of examination here; exempts the members of the association from jury service. It is not going to become law, however, without a very severe fight, for the members of the legislature seem opposed generally to legislation of this character. Messrs. Cochrane, Henderson, and Shotbolt are a committee to get the amendments through, and, be it known, Henderson and Cochrane are rustlers, sure. Mr. Cochrane has been over at the House talking with the members almost daily, and would, doubtless, have continued had not his clerk, Mr. Price, decided to seek other pastures. Mr. Shotbolt, owing to a badly sprained ankle, cannot canvass the members to any extent, being confined to his store.

Unfortunately, a young gentleman who has a grievance with the British Columbia Pharmaceutical Association is working hard to stop the passage of the bill referred to. It seems that this young man left this city after having served his apprenticeship, and went to Chicago, where he attended a course of lectures at the Illinois College of Pharmacy, receiving a diploma. He omitted to take the State Board Examination of Illinois, and on his return here the local association informed him that he must take the examination of this province. He declined, and on the advice of his lawyer has taken the above course. Lengthy letters *pro* and *con* his case generally, but particularly on the relative merits of state board examiners, college diplomas, and "practical experience," have appeared this last week in the *Colonist* newspaper. This paper, in an editorial, spoke out plainly against some remarks made in the House during the discussion on the second reading, and the almost ridiculous bill introduced by one Sword to *repeal the Pharmacy Act of 1891*. That this latter bill will be knocked out goes without saying, but just what will be the outcome of this unfortunate disagreement between the young man and the British Columbia Association is more than your correspondent can say.

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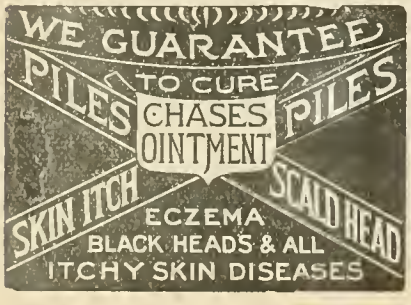

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Trade Notes.

G. E. Buttler, druggist, Toronto, has made an assignment.

Mr. Cowie is starting a new drug business at Edmonton, N.W.T.

A new drug store is being opened at Portage la Prairie, Man., by John Hill.

A. J. Hunter has sold his drug business at Everett, Ont., to C. M. Kingston.

G. H. Williams, formerly of Revelstoke, B.C., has opened a drug store at Three Forks, Oregon.

W. J. Flemming & Co. have purchased the drug business of White & Co., Prince Albert, Saskatchewan.

The Dominion Glass Company, Jos. Barsalon, President, has registered in the Tutelle office, Montreal.

Henry Procter has sold his fourth interest in the Crescent Pharmacy, Nanaimo, B.C., to F. C. Stearman.

N. I. McDermid has moved his drug business from his old stand to the corner of Dundas and Wellington streets, London, Ont.

John W. Bunting, who for some time had a drug business on Wellesley Street, Toronto, Ont., died at Pickering, Ont., February 7th.

H. Proctor, formerly in business in Nanaimo, B.C., has purchased the drug store at the corner of Queen and Bathurst streets, Toronto, Ont.

Nova Scotia.

During the week which marked the funeral obsequies of our late Premier, the influx of strangers to Halifax was very large, the drug fraternity being well represented by members from all parts of Nova Scotia and the neighboring provinces of New Brunswick and Prince Edward Island. On the return of the island contingent, the S.S. *Stanley*, by which they intended taking passage, was detained at Pictou by stress of weather, and in the words of one of their number, "There are twenty-three of us islanders, all told, detained at Pictou by a furious snowstorm, some of us rather jolly, under adverse circumstances, *a la* Mark Tapley."

Among the representatives we noticed Mr. D. Reddin, of Reddin Bros., of Charlottetown, who was his usual self, and amusing his friends with flashes of wit. With his characteristic energy, Mr. Reddin secured tickets for all the functions of the week. We rather think Denny was glad he came to Halifax.

Dr. A. D. McGillvary, of Sydney, C.B., was also among the visitors to the city last week. The doctor's visits to the metropolis are not of very frequent occurrence.

Mr. R. D. Stiles, of Pictou, was another in the list of visiting druggists, as was Mr. Wm. Crowe, of Crowe Bros., Truro.

Mr. George V. Rand, the well known druggist of Wolfville, who, we regret to say, met with a serious accident at his home some few weeks ago, by falling down stairs, is somewhat improved, but still not by any means completely recovered.

Mr. Hugh E. Calkin, formerly in the employ of Simson Bros. & Co., Halifax, has purchased the business of R. O. Christie, of Springhill, and will carry on same at that place. Mr. Christie intends opening a drug store at Little Glace Bay, C.B. We trust both the gentlemen will meet with success in their undertakings.

Mr. W. A. Canfield, formerly in the employ of W. H. Hills, Acadia Mines, has secured a position with Simson Bros. & Co.

Mr. E. J. Phelan, who was for some years with C. A. Sterns, of Apothecaries' Hall, Halifax, has gone to Glace Bay to fill a vacancy in the store of Senator Wm. McDonald at that place.

Mr. Alfred A. Patterson, for some time buyer for Simson Bros. & Co., at present seeking health in South Africa, is writing very entertainingly of his adventures in that country, and his letters are appearing in the Halifax *Herald*. This Halifax boy is now located within fifteen miles of Compasberg, the highest point of the cape, lying in the Sneeuwberg mountain range, and where the atmosphere is so clear that the formation of the boulders on the mountain side can be distinctly discerned at a distance of from fifteen to twenty miles. Mr. Patterson reports his health improved, and weight increased.

Prince Edward Island.

Hitherto agents of the wholesale drug houses of Montreal have usually paid their first annual visit to Prince Edward Island not earlier than the months of May or April. 1895 initiates a new departure. Mr. David Watson, jr., of Messrs. Kerry, Watson & Co., arrived in the last week of January, and some of his fellow-travellers from Montreal are so near, upon the mainland, that their advent is daily expected If an experiment is being made, one can scarcely refrain from predicting a failure, for the island druggists have to buy in the autumn a full stock in case of complete isolation in winter, and, as a result, their wants are small in midwinter, and these wants are immediate ones. The uncertainty of freight rates, as well as the date of arrival of goods ordered, cannot but militate against the success of the venture, which even the Halifax wholesale houses have not been brave enough to essay, although they have the advantage over their Montreal competitors of closer communication.

Montreal College of Pharmacy.

At the College of Pharmacy recently, instead of the regular lecture on materia medica, Prof. T. D. Reed gave a lecture on the use of the microscope by pharmacists and chemists. A large number of instructive and beautiful objects were shown under a series of microscopes, the purpose being to bear out the recommendation of the microscope as an instrument of recreation, instruction, and practical utility; also for the purpose of exhibiting specimens to the audience, objects which had been photographed were shown by the projection lantern and limelight. Among those present were D. Watson, J. E. Morrison, E. Muir, and a large number of students. Mr. Watson, the president, on moving a vote of thanks to Dr. Reed for the entertaining and instructive lecture and demonstration, which all had enjoyed, stated that the college was adding to its appliances the instruments necessary for the teaching of pharmacy according to advanced modern science. The present session is one of the best in the history of the college, ninety-three students having been enrolled.

Pharmaceutical Association of the Province of Quebec.

PRELIMINARY EXAMINATIONS.

The preliminary Board of Examiners held their quarterly examinations in Montreal and Quebec on Thursday, Jan. 3rd, when thirty-five candidates presented themselves in Montreal, and four in Quebec, and of these the following, named in order of merit, passed, and are entitled to be registered as certified apprentices, namely: A. G. Lapointe, E. W. Jacobs, B. Rogalsky, J. E. Dagneau, F. J. Lemaistre, R. O. Dumont, J. A Langlois, H. Généreau, W. E. McKee, C. F. Covernton, and Raoul Grignon. The following candidates passed in all subjects but one, namely: James A. Gillespie and G. A. Ricard, Latin; W. J. Shea, Geography. The remainder of the candidates are referred back for further study.

The examiners were Professors A. Leblonde de Brumatt and Isaac Gammell, with Mr. A. Lakin acting as supervisor in Quebec. The next examination will take place on the 4th of April, and candidates are required to give the Registrar, Mr. E. Muir, ten days' previous notice of their intention to present themselves.

An Elegant and Brilliant French Polish.

De la Rogère gives the following as the formula for a polish for woods, which has a magnificent and unrivalled brilliancy: In 1,500 parts of alcohol of 94° dissolve 30 parts sulphuric ether, 25 parts lavender oil, 25 parts spike oil, 30 parts boric acid, 7 parts camphor, 30 parts hard copal, 100 parts sandarac, 365 parts shellac, 30 parts benzoin, 30 parts balsam copaiba, and 5 parts tincture of cinnamon. This polish may be applied with the pencil, or with the polisher's "daub" (a ball of cotton covered with silk or linen). No oil is used on the latter when thus applied.—*National Druggist.*

Pharmacy in England.

German Competition in Surgical Instruments—A Physician dispenses a fatal dose of Strychnine for Himself—A Monopoly of the word "Medical" Sought for—New Examiners of the Pharmaceutical Society—Tea Tablets.

(From Our Own Correspondent.)

There is just now something like a flood of German instruments and sundries being introduced to the drug trade in England. Clinical thermometers are being offered in nickel cases at $40 per dozen, which is surely "rock bottom." Besides this there are binaural stethoscopes selling at prices fully 50 per cent. lower than only a few years ago. The patent of a well-known firm of manufacturers of seamless enemas having expired, there are any number of imitations on the market. Most of these it is quite incorrect to describe as "seamless." They certainly appear so on a cursory inspection, but closer examination shows that it is only the heavy enamelling on the surface that hides the seams. In addition to these, the antiseptic era of surgery has proved a fine opening to the German instrument manufacturers, and these goods are being largely manufactured in one solid piece of steel, or in such a manner that they can easily be taken to pieces and sterilized. All the leading hospitals are adopting sterilizers or autoclaves, by means of which instruments, bandages, etc., can be effectually sterilized by heat. Some of these pieces of apparatus are very elaborate and very expensive. The large-sized sterilizers are fitted with safety valves, tubalures for thermometers, etc., and frequently cost as much as $50 to $100. Simple copper cases for scalpels, small aseptic knives, etc., are made so that they can be placed over a Bunsen burner and heated to redness. As the scalpels and knives are made of solid steel, very effective sterilization can thus be assured, whilst no deterioration takes place. One of the greatest drawbacks to the use of antiseptic and germicidal solutions, such as corrosive sublimate and sal-alembroth, was the corrosion of the instruments. Sterilization by heat is quite as effective, and without this serious drawback. With regard to the cheap clinical thermometers alluded to above, it should be noted that these catch lines are frequently of very inferior quality. The inaccuracy of clinical thermometers is notorious, and an examination of a number a few years ago indicated that the graduation was so incorrect that readings were frequently more than a degree or two out. *The Lancet* recently raised a protest against "half-minute" clinical thermometers. These quick reading thermometers are misleading, according to *The Lancet*, as the mere opening of the mouth to introduce the instrument reduces the temperature so much that, at the expiration of half a minute, the full temperature is not restored.

The accidental death of a doctor in London is reported as being due to his inadvertently taking an overdose of a strychnine mixture for neuralgia. He was a particularly handsome man and always immaculately dressed, and yet it was not his first mistake in dispensing. It is related that some time ago he was observed rushing hatless from his surgery in order to overtake a patient. It transpired that he had doubled the quantity of medicine, but forgotten to alter the dose. With regard to his last fatal error, by which he lost his life, it is exceedingly probable that he had the whole of the strychnine dissolved in a glass measure ready to put into the mixture bottle. He was called away from the dispensing counter for a moment and on his return raised the measure to his lips and drank the contents, thinking it was a measured dose from the medicine bottle. He lingered for nearly an hour, and his death was most painful, owing to the continued tetanic spasms, which, in spite of medical assistance, were uncontrollable. It is surely the irony of fate that the deceased doctor was the author of an article, published in a medical journal only a year or two ago, advocating the advantages of a special and distinctive bottle always to be employed for poisons.

A precious bill has just been introduced by the British Medical Association, in order to secure the monopoly of the word "medical." Thus it is laid down as a penal offence for any one, not a legally qualified medical man, to assume, use, or take the title medical practitioner, medical specialist, medical dispenser, medico-herbalist, medico-electrician, and so on. The penalty, therefore, which a pharmacist would incur if he should dare to call himself a medical dispenser (which is just what he is), or his pharmacy a medical hall, is the liability to imprisonment for twelve months. It need hardly be said that there is not the remotest chance of the bill ever being passed by Parliament, but it is a fine specimen of the cool assumption of some of our notoriety-hunting medicos. It must be admitted that the medical profession suffer considerably from the illegitimate practise of medicine by persons totally unacquainted with the subject. But a body that cannot agree to let nurses be properly examined and registered without showing a degree of jealousy, which has made it a laughing-stock, is hardly to be encouraged in the endeavor to secure anything further in the way of a monopoly.

The introduction of professional examiners on the Examining Board of the Pharmaceutical Society has had no appreciable effect on the number of passes and failures. It is rumored that Professor Green is particularly severe, although it is not stated whether his own students at Bloomsbury Square, with whom he is immensely popular, experience the same severity. The character of the examinations cannot fail to be improved by the addition of these professors to the Board, and they are naturally more in touch with students, and understand the requirements which a student should be able to satisfy better than pharmacists who have left their schooldays long behind. The new examiners include Professor Percy Frankland, F.R.S., of Mason's College, Birmingham, and Professor McLeod, of Cooper's Hill College, who will take chemistry at the London examinations, and Professor J. Gibson, of the Heriot Watt College, at Edinburgh. Professor Green, D.Sc., M.A., of the society's school, and Mr. A. C. Seward, M.A., Lecturer and Examiner at Cambridge University, will take botany in London, and Professor Patrick Geddes, of University College, Dundee, will examine in the same subject in Edinburgh. The Pharmaceutical Society is certainly fortunate in obtaining the services of such eminent men, as the emolument is not large. Travelling expenses are, of course, allowed, but the fees are only $16 per diem, and the examinations now only run into some twenty days in the year.

Some time ago I mentioned the introduction of compressed tablets of tea by Messrs. Burroughs, Welcome & Co., and there is no doubt that they have "caught on" with the public, and particularly with the travelling section. Special care is taken to select the tea leaves and remove the mid-rib, after which it is crushed and compressed. When infused in a cup of boiling water, preferably by means of a patent straining-spoon, a capital cup of tea is produced in a few moments. I understand that Messrs. Burroughs, Welcome & Co. have had to have special tabloid machines erected for the purpose, and the demand for the tablets is sufficient to keep four or five constantly going. The latest idea, introduced by the Terrabona Company, is decidedly novel, and a step in advance. They have introduced packets of tea, milk, and sugar combined, and the ingredients, sufficient for at least three cups of tea, are enclosed in a gelatine wrapper. The use of the gelatine covering is still further claimed as a novel improvement, as it is stated to precipitate the tanning from the tea. This latest novelty is put up in packets, to retail at two cents each, and supplied to druggists at $2.16 per gross, and it is claimed that it will prove a boon to tourists and travellers. The invention is duly protected by patent, and as an attractive novelty will doubtless command a ready sale.

SALUBRIN, a specialty prepared in Switzerland and recommended as a strong antiseptic and hæmostatic, is said to consist of about 2 parts of acetic acid, 25 parts of acetic ether, 50 parts of alcohol, and 23 parts of water. It is used as a dressing for wounds.

SUBLIMOPHENOL.—By bringing together equal molecules of mercuric chloride and potassium carbolate, and gently heating the solution, a brick-red precipitate, which passes through yellow to white, forms, consisting of a mixed chloride and carbolate of mercury. This has been termed sublimophenol. Washed, dried, and dissolved in boiling alcohol, it forms, on cooling, colorless crystals.

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Practical Hints on Pharmacy.*

By Chas. L. Weidler, Ph.G.

This paper is made up of ideas, some original and some not. The object is to give a few practical hints which the writer has found by experience to be thoroughly practical and up to date. In these days of progression and sharp competition, it is necessary for one to be fully awake and take advantage of every little thing. People like to see a druggist who is progressive, and it is the best kind of an advertisement for people to say, "Well, I like to deal at Mr. Z.'s store; he always has something new to show or tell, and he is thoroughly up to date." This paper deals, however, with subjects behind the prescription counter rather than with those in the front.

Every druggist has, of course, his practical ideas worked out in some form, but perhaps there are some hints in this paper that will be of service to him. What may be of use in one store is not necessarily true of others, but it is hoped that all will be of some value to every one.

Always send a repeated prescription out in a new dress. A repeated prescription with soiled label shows carelessness and lack of attention to details Prescriptions, above other things, should be faultlessly put up.

All prescriptions, when finished, should be checked off by another prescription clerk. The ingredients, quantities, weights, measures, and labels, should all be called off by the compounder, each little point being noted. This is the only way of insuring absolute accuracy. This has been the means on innumerable occasions of saving the druggist's reputation. A case that recently happened will bear repeating. It was a murder trial in New York, and the prescription called for quinine sulphate and morphine sulphate, the latter in doses of $\frac{1}{16}$ grain each, in capsule form. The patient died, and, as there were peculiar circumstances attending the death, a chemical examination of the contents of the stomach of the dead body was made. Morphine was found in such quantities as to leave not the slightest doubt but that she had died from morphine poisoning. The druggist was brought to trial, charged with criminal negligence in compounding prescriptions. On the witness stand it was proven that all prescriptions in that store were checked off by another prescription clerk, who had examined the bottles, weights, etc., and found them correct. It is needless to state that the druggist was fully exonerated, and in the end the affair was of decided benefit to him. All the proceedings were known to every one, and when the true facts of the matter became public property customers showed their confidence in his ability and carefulness in a substantial manner. It was subsequently proven that the morphine that caused the death of the patient was administered by the prescriber, who later paid the penalty for the crime.

Mucilage of Acacia when allowed to stand for some time changes in composition, due to a fermentation that sets up. The preparation may be kept indefinitely by using chloroform water. I do not think any physician could object to chloroform being there, as it is present to the extent of only one-half of one per cent.

In making infusion of digitalis, it has been shown that cold water is preferable to hot water, in that less coloring matter and more colorless active principles are dissolved. In the following formula it has been found that the product keeps a month longer, while with the official product a decomposition sets in in three or four days. Dr. H. C. Wood, Professor in the University of Pennsylvania, states that there is no therapeutic objection to the use of ammonia water in the quantity and manner used. The formula is as follows:

Digitalis leaves, bruised	120 grains.
Water	14½ fluid ozs.
Ammonia water	90 minims.
Alcohol	1 fluid oz.

Macerate for one hour, agitating occasionally, express, wash residue with water filter. To the 14½ fluid ounces add 90 minims ammonia water, 1 fluid ounce alcohol, and sufficient water to make the product measure a pint.

In making the Tincture of Catechu or the Compound Tincture of the Pharmacopœia, gelatinization always results after a time. This is overcome by the use of logwood to the extent of ten per cent. There can be no therapeutic objection to its use.

This time in the year there are frequent calls for a good gargle. One largely used in the East and a most excellent preparation is composed of the Compound Infusion of Rose Leaves, with Tannin and Chlorate of Potash.

Ammonia Carbonate, as it is generally kept in the drug store, quickly loses its carbonic acid gas and ammonia, resulting in a white opaque mass or powder. In making the aromatic spirits of ammonia it is necessary to use the white translucent masses; hence the importance of keeping Ammonia Carbonate in its proper condition. An excellent plan to adopt is to keep it in a stone jar provided with perforated false bottom. A small quantity of concentrated ammonia being kept in the bottom all the time will insure a first-class chemical, the liberation of the ammonia gas from the water supplying that lost by the carbonate.

Prescriptions calling for soft elastic capsules containing liquids are received frequently, and every druggist, when it is practical, should put up his own capsules. There is a firm now who get up an apparatus for filling capsules, they supplying the capsules with the apparatus. The capsules are so shaped that an end can be cut off, the liquid dropped in from the apparatus, and the open top can be easily covered. It is an ingenious idea, and so simple that expertness comes with the first few trials. A prescription calling for two dozen capsules could easily be made in twenty minutes, affording a profit proportionately much greater than when capsules already put up are dispensed.

Adeps Lanae Hydrosus is the official Lanoline and contains 30 per cent. of water. It is far cheaper to buy the anhydrous Lanoline and mix the water with it yourself.

Chloroform is now made so pure and so cheaply that the Pharmacopœia, recognizing this fact, has discarded the former official chloroformum venale. Notwithstanding this fact, there are still two kinds in commerce so-called, pure and impure. The modern process for its manufacture yields the remarkable amount of 167 per cent. of pure chloroform from 100 per cent. of original material, or, in other words, one hundred parts of acetone will yield one hundred and sixty seven parts of pure chloroform; thus making it entirely unnecessary to purchase so-called commercial chloroform at the price of the pure and pay a higher price for that labelled pure, when they all come from the same original container.

Regarding excipients, there should always be a little jar of glucose syrup, and one each of glycerite of starch and tragacanth; also a variety of one ounce bottles with pipette in cork, containing, variously, water, mucilage of acacia, glycerine, and syrup. For dusting powders, there should be a number, all in two ounce wide mouth bottles with sprinkler top, containing, respectively, powdered licorice root, starch, lycopodium, powdered acacia, and powdered carbonate of magnesia. These could be arranged conveniently on one shelf on the prescription counter, and will be the means of saving much time, trouble, and many steps.

Every prescription counter should be supplied with a powder board for folding powders on, one, say, seventeen by twenty inches would be sufficiently large. Have the surface smooth and well varnished. The average prescription counter is always a little soiled, and rarely presents a perfectly smooth surface. This little device, if kept within easy reach, will be found a necessity.

An ingenious device recently put on the market by a Boston house is an ointment slab or block composed of several layers of parchment paper. The idea is that after the ointment is mixed on the top sheet this can simply be torn off and thrown away, saving much time, as it does away with the usual porcelain slab and its frequent cleaning. Some ointments may be too stiff to work with advantage, but they can be easily softened. In the way of a spatula for use with ointments that act on metal there is quite an ingenious one gotten out by another Boston firm. It consists of a steel blade thoroughly coated with gutta percha, forming altogether a very useful utensil, combining all the advantages of the ordinary spatula with none of its disadvantages.

*Read before the O.S.P.A., 1894.

For poisonous drugs, there is the poison closet, a very safe necessity. An excellent plan is to have on the door a table of doses, maximum and minimum, with antidotes. For weighing poisonous drugs or chemicals, we have the specially delicate balance. This should never rest *on* the prescription counter, but so supported as to be entirely free from all jarring, which is almost as detrimental to the life of a good balance as careless handling.

There is always a certain place in the drug store reserved for drugs, chemicals, and odds and ends that are only occasionally called for. An excellent plan to adopt when the number is large is to have a book properly indexed, and have all alphabetically arranged. This saves much time and annoyance, as we all know how exasperating it is to have a call for something and know you have it, but can't just remember where it is. You don't like to keep the customer waiting, or he won't wait, so a sale is lost.

A good scheme for keeping track of the cost of and date of purchase of certain goods generally kept in drawers is to have a tin slot frame made suitable to receive an ordinary stiff card, which can be slipped in properly marked when the drawer is refilled.

Last, but not least—a place for everything and everything *always* in its place. There is nothing so annoying as to be in a hurry and going to look for something, to find the place where it always has been kept occupied with something entirely different.—*Pacific Drug Review.*

Pharmaceutical Analysis.

(Continued from page 22, January 1895.)

SOME SPECIAL TESTS FOR DRUGS AND CHEMICALS.

SULPHATE OF ZINC.—Boiled with excess of caustic potash it should entirely dissolve. A blue coloration on the addition of ammonia indicates copper. Add sulphydrate of ammonia; if white precipitate, the sample is free from iron. Should the precipitate be gray or dark in color, it indicates the presence of iron.

SCAMMONY.—Starch may be detected by adding tincture of iodine to a little of the powdered scammony shaken up with boiling water, and allowed to cool. If it turns blue, it indicates the presence of starch. If adulterated with common resin or guaiacum, the addition of sulphuric acid will turn it red; if the latter alone, it will change to green on mixing with water. It should not change on the addition of chloride of soda or perchloride of iron. The presence of jalap resin may be detected by shaking up scammony with ether. Jalap resin remains undissolved.

SPIRIT OF NITROUS ETHER.—Should have a specific gravity of 0.840 to 0.845; should not effervesce, or but feebly, when shaken up with bicarbonate of soda. The presence of aldehyde is indicated by a brown coloration on heating with caustic potash. It should yield not much less than five times its volume of the gas on keeping. The spirit may be tested with accuracy by the nitrometer, or the following simple method. Prepare two solutions as follows:

No. 1.

R.—Sodii hyposulph..... gr. iv.
Sodii chloridi..... gr. xl.
Potass. iodid..... gr. xx.
Aq. ad..... ℥ ii.
Solve.

No. 2.

R.—Spt. æther. nitros. ..... ℥ ii.
Acid. sulph. dil..... ℥ i.
Misce.

Place No. 1 solution in a small porcelain dish—a two-ounce ointment pot will answer the purpose. Pour into this ℥iss of No. 2 solution, and stir till effervescence ceases. The mixture should be free from iodine color; if not so, the spirit of nitre is stronger than should be used; if no iodine has remained free after the effervescence has passed off, add another ℥ss of the No. 2 solution. This should now produce a permanent brown color, if the spirit of nitre is up to its normal strength. If a second addition of ℥ss (total ℥iiss) is required, it is below its normal, but not unfit for use; but if this second ℥ss fails to produce a permanent brown color, the spirit of nitre is too weak to be sanctioned.

VOLATILE OILS.—Volatile or essential oils are sometimes adulterated with fatty oils, resins, balsams, and alcohol, etc. A spot of the sample placed on paper and allowed to evaporate should leave no grease behind if pure. If diluted with alcohol, on shaking up with a few small pieces of chloride of calcium the chemical will become partly dissolved.

WAX.—Boil a small quantity of beeswax with water, any mineral impurities present will settle to the bottom. Add a few drops of tincture of iodine to the water in which the sample has been boiled, and, if it turns blue, it proves the presence of starch. Resin and fats may be dissolved out, if present, by shaking a portion of the wax up with chloroform. If more than 25 per cent. be dissolved, it indicates adulteration.—*British and Colonial Druggist's Diary.*

A Local Remedy for Diphtheria.

Professor Loeffler, of Greifswald, the discoverer of the diphtheria bacillus, has suggested a new remedy for the disease. The mixture recommended is said to consist of alcohol, 60 parts; toluol, 36; and solution of ferric chloride, 4. Menthol is added to deaden the pain caused by the application, which is effected by means of pieces of wadding, the affected parts being at first treated every three or four hours. Of seventy-one patients treated by this method from the outset, all have been saved, while only one death occurred out of twenty-six cases treated after the second day of the attack.

Oil Emulsions.*

By STEPHEN J. CLARK.

In making a good oil emulsion, it has always been considered by pharmacists in general as an operation requiring a skillful manipulation, and to manage the operation so as to be successful in producing a perfect emulsion in every case was considered a high accomplishment by the ordinary pharmacist. The pharmacists of this country have paid too little attention to making first-class emulsions. Physicians, as we all know, very seldom prescribe oil, gum, and water in their proper proportions. Consequently, the pharmacist is compelled to use his own judgment in dispensing a perfect emulsion. Emulsions are deserving of a great deal of attention. In fact, the physician, as well as the pharmacist, should be more familiar with this class of preparations.

Two methods are employed in the manufacture of such emulsions. One consists in making a thick mucilage, to which the oil is added gradually in small proportions until it is all thoroughly incorporated, and lastly, the other ingredients. The second method, which is, no doubt, universally employed in the leading pharmacies of this country, and its process, most all druggists are well versed in. Nevertheless, to accomplish a perfect success, I wish to suggest and impress a few very important points on this subject.

First of all, cleanliness, like in all other manipulations, is one of the agents which should never be lost sight of, and especially so in this case. A most convenient and advisable shape of a mortar employed during this process is one of a shallow form with a flat pestle properly adjusted to its shape. The powder, should be of absolute purity, should be placed into the mortar, its dust covering the sides of the vessel, keeping the oil from greasing them. Now, the oil should be added in the proportion of one to two of the gum, and, after being well mixed, add a certain amount of water. Most any apprentice, after following these rules, should be able to turn out a first-class preparation. As it is in these days of progress, druggists should provide themselves with an emulsifier, which would be a very useful machine to them if they are in a community where emulsions are very frequently prescribed. A perfect emulsion should be as white as milk and its fat globules too small to be visible to the naked eye. In fact, it should be a homogeneous compound.—*Pacific Drug Review.*

IODOPHENOCHLORAL.—This is a mixture of equal parts of tincture of iodine, carbolic acid, and chloral hydrate, and has been recommended as an application in certain skin diseases. The brown liquid must be carefully preserved.

*Read before the O.S.P.A., 1894.

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The Examination of Urine.

The importance to pharmacists of a general knowledge of urinary analysis is now universally admitted, whilst increased attention is being paid to the subject by the medical profession. The tendency, therefore, should be, and in a measure is, towards the busy practitioner and consulting physician depending more and more upon the chemical training of the pharmacist to relieve them of detail work, for which they have neither time nor inclination. A recent edition of a standard work on the subject contains the following: "No account of the method of making standard solutions will be given, as this preparation requires a greater knowledge of chemistry than is usually possessed by the clinical (medical) student. For the same reason, no details have been introduced which require the use of a balance." This absence of chemical training in the average medical man is surely the pharmacist's opportunity. Moreover, the cultivation of this branch of analytical chemistry cannot fail to improve the status of pharmacists, as well as prove an extra source of remuneration.

It is the object of the present article to give, in a concise manner, an outline of some of the methods which have been proved in practice to be most useful and convenient. Although the matter will be largely selective, the opportunity will be taken to draw attention to some of the latest tests, and also to recent developments in physiological chemistry.

A caution may well be given here against the employment of single tests—a method of analysis much employed by medical men, but which is often unreliable. The pharmacists should always employ two or three controlling tests, and so make sure of his results.

It will be more convenient, perhaps, to divide the subject into "General Qualitative Examination," and "Quantitative Determination of Constituents."

GENERAL QUALITATIVE EXAMINATION.

This is best conducted, according to a definite plan, as follows: 1. Note the color, opacity, and translucency of the sample. 2. Ascertain the specific gravity and volume. 3. Reaction to test papers. 4. Test for albumin. 5. Test for sugar. 6. Test for biliary salts and pigments. 7. Examine the sediment, both chemically and microscopically.

COLOR.—The normal color of urine may be affected by disease, or by the ingestion of drugs. In diabetes, hysterical affections, anæmia, etc., the urine is usually very pale. Dark-colored urine may be due to fever, biliary pigments, blood, etc. If due to fever, the specific gravity will be high, the volume excreted small, and the presence of urobilin highly probable. Urine containing blood from the kidneys has a smoky-brown appearance, and deposits a sediment of pigments and blood corpuscles. Santonin, rhubarb, and senna give orange-colored urine, rendered red by the addition of alkali. Logwood internally communicates a reddish tinge, and carbolic acid and creosote turn the urine blackish. Healthy urine is quite clear when voided, but on standing a small quantity of mucus and urates are frequently deposited.

VOLUME.—If the whole of the excretion of twenty-four hours has been sent, it should be measured and recorded. The average amount passed daily in health is about 1,500 c.c., or 52 fl. ozs., but it varies widely. The amount is considerably increased in diabetes, where the excessive thirst is one of the distressing features of the disease. In fevers the volume is very much reduced.

SPECIFIC GRAVITY.—This is ascertained by the form of glass hydrometer known as urinometer. It is as well to check the accuracy of this little instrument by means of the ordinary specific gravity bottle. Frequent errors are made in taking specific gravities. The temperature of the liquid should be 60° F. (15.5° C.), and the eye on a level with the surface of the urine. The degree should then be taken which coincides with the lower edge of the capillary elevation. Normal urine varies from about 1.015 to 1.025. Lower gravity than 1.010 occurs after drinking fluids freely, or as the result of cold diuretics, etc. High gravity may be due to excess of urea or sugar. Note that a low specific gravity may sometimes occur even in diabetes, as shown last year by Sir Edward Sieveking.

REACTION.—Urine is usually acid from the presence of acid sodium phosphate; rarely from free acids. After a full meal it is frequently alkaline. In acute diseases it is often highly acid. Excessive alkalinity may be due to the administration of alkalies or to decomposition, when urea has been converted into ammonia. To determine which of these two may be the cause, red litmus paper should be immersed in the sample, and gently warmed until dry. If fixed alkalies are present, the test paper remains permanently blue.

ALBUMIN.—A large number of tests for the detection of albumin in urine have been proposed. Many of these are excessively delicate, perhaps too much so, as they generally precipitate other substances as well. In acute fevers albumin is often present, but disappears after the fever has subsided. The most serious form of albuminuria is known as Bright's disease.

Heat and Acid Test.—Filter a small quantity of the urine, if not bright and clear. Fill a test tube two-thirds full with the sample, and heat the *upper* part of the urine until it boils, and then add two drops of strong acetic acid. Any coagulation or cloudiness, which is permanent, is due to albumin, whilst a turbidity, which might be due to precipitated phosphates, will be dissolved by the acid. The only possible error is the precipitation of mucin in neutral or alkaline urine. If the sample is acid, and has stood some time, all the mucin will be separated by filtration. If neutral, or alkaline, it should first be carefully acidified and filtered, or tests for mucin may be tried.

Cold Nitric Acid Test.—A delicate method is that suggested by Sir William Roberts. One volume of concentrated nitric acid is mixed with three volumes of a saturated solution of magnesium sulphate. Place a small quantity of this solution in a test tube, and add the urine very carefully from a pipette, inclining the tube so that the urine flows gently on to the surface of the denser liquid. If albumin be present in considerable amount, a white zone is formed at the junction of the liquids, whilst, if only traces are present, it may require to stand some time before a haze appears. The test is not so satisfactory as the heat and acid, as uric acid and urea nitrate in concentrated urine may react, whilst copaiba, balsam of tolu, etc., taken internally, give a similar appearance to albumin, but redissolve on shaking with more acid or some alcohol. The test of acidulating with strong nitric acid, and boiling, although in very common use, must be condemned. It is almost certain to convert a large proportion of the albumin into soluble acid-albumin, which is not precipitated on boiling.

Picric Acid Test.—A saturated solution is employed. Coagulation takes place at the point of junction if the contact-method as above described is used. This is increased by rotation of the test-tube. It should be carefully noted that picric acid precipitates peptones and alkaloids as well as albumin. On heating, however, the former bodies redissolve.

Trichloracetic Acid Test.—A very sensitive reagent, detecting 1 part of albumin in 100,000 parts of urine. It precipitates alkaloids, but they dissolve again on adding excess of the reagent. True peptone is not precipitated, but proteoses or albumoses (intermediate bodies between albumin and peptone) are coagulated, but redissolve on warming.

SUGAR.—When testing for sugar, it is very advisable to remove any albumin that may be present by boiling and acidulating with acetic acid and subsequently filtering. Urates should also be filtered out if in considerable amount, or the urine decanted.

Fehling's Test.—This test is so well known as to require but little description. The pharmacopœial solutions may be employed, and it should be remembered that if kept ready mixed it is liable to reduction in time, and so prove unreliable. This is easily ascertainable, as it should undergo no change when boiled. Fill a test-tube about one-fourth full with the test solution, and boil. If no change occurs the test is reliable, and a few drops of urine should be added and the contents boiled again. If there is still no alteration, continue adding a little more urine and boiling until an equal volume of urine has been added to the test. If no precipitation has taken place, sugar is absent. In many instances, however, a change takes place giving a greenish-color

and a deposit occurs. Uric acid, creatinine, and other constituents, may occasion this. But this is very different, and cannot be mistaken for the orange or red suboxide or copper which is quickly precipitated when diabetic urine is tested.

Phenylhydrazin Test.—Since the elaborate researches upon the sugars by Emil Fischer, this test has come into prominence. It is considered reliable for the purpose of distinguishing urine containing traces of sugar from those containing excessive amounts of other reducing bodies, such as uric acid, etc. As modified by Richter, this test is as follows: Phenylhydrazin hydrochlorate, 2 parts; sodium acetate, 3 parts; water, 20 parts. Mix equal volumes of the urine, and test and digest for 1 hour on a water-bath, replacing water lost by evaporation. After fifteen to twenty minutes there is a separation of slender yellow needles, and at the expiration of an hour about 80 per cent. of the glucose has been converted into the phenylhydrazin compound. The needles may be filtered off, washed, dried, and dissolved in boiling alcohol and reprecipitated by water. They melt at about 204-205°C., and their feathery appearance under the microscope is very characteristic.

Biliary Salts and Pigments.—The presence of bile in urine usually communicates a dark-brownish color to the excretion, which is made deeper brown by the addition of alkali. Commercial peptone, consisting largely of albumoses, is a delicate test for bile salts.

Flesh peptone should be dissolved in distilled water, in about the proportion of 2 grammes in 250 cc., with a trace of salicylic acid to preserve it. If filtered bright, it is permanent. Dr. Oliver, who recommended the test, suggests the dilution of the urine before applying the test, but this is only necessary where a slight haze would be obscured by the depth of color in the sample. Bile pigment may be detected by the reaction with iodine. A drop or two of the B.P. solution of iodine should be poured down the side of a test-tube half-filled with urine. If bile pigment be present, a fine green color appears, whilst, if absent, only a pale yellow coloration is seen.

Urinary Sediments.—Besides mucus and urates, which are commonly deposited in healthy urine, phosphates may appear in ammoniacal or stale urine, or after the ingestion of alkaline salts. Pus, uric acid, and oxalate of calcium may occur in morbid urine, and when albumin is present diligent search must be made for renal casts. The sediment should be collected in a conical vessel and a small quantity withdrawn, by means of a pipette, with as little of the supernatant liquid as possible. A drop may thus be placed upon a slide, the cover slip gently pressed over it, superfluous liquid oozing out removed by clean blotting paper. A ¼ or ⅙ inch objective will be found a very useful size for the microscopical examination.

Urates.—Readily detected by their dissolving when gently warmed. They are frequently pink-colored from the urinary pigment, uroerythrin. They have no special significance, as they occur whenever there is diminished secretion from any cause. Urates in urine are acid urates of sodium, potassium, or ammonium.

Uric Acid, often accompanied with urates, is recognizable to the naked eye from its similarity to cayenne pepper. It is insoluble when heated, but dissolves in a few drops of solution of potash, reprecipitated by acids. Its appearance under the microscope varies, the common forms being lozenge-shape, rosettes, or dumb-bells.

Phosphates appear as a white deposit, and may be recognized by their solubility in acetic acid. The acid solution can then be tested for phosphates in the ordinary way, either by molybdic acid or magnesium mixture.

Oxalate of Calcium is insoluble in acetic acid or in alkalies, but dissolves in hydrochloric acid. It generally occurs as octahedra, or dumb-bell crystals, with mucus.

Mucus is thin in acid urine, ropy in alkaline. Mucin is precipitated by acids, alcohol, or alum, but dissolved by alkalies, and not affected by mercuric chloride. Microscopically examined, mucous corpuscles resemble leucocytes.

Pus always renders urine turbid, but in acid urine it separates as a white deposit somewhat similar to phosphates. The addition of alkali turns it into a gelatinous mass, and if the urine is alkaline the deposit will have this appearance. It is precipitated by mercuric chloride. A drop of acetic acid renders the nuclei of pus cells much more distinct under the microscope, and the granular corpuscles are colored mahogany-brown by iodine solution, whilst epithelial cells are only tinged yellow.

Renal Casts are cylinders which have received their shape from the renal tubules. They are absolutely confirmative of the presence and significance of albumin, and indicate disease of the kidneys. There are several varieties, the principal being blood-casts, granular, and hyaline casts. Blood-casts are recognizable from the number of red-blood corpuscles. Granular casts are opaque, with sharp outline and irregular granules. These consist of degenerated epithelial cells or blood corpuscles. Hyaline casts are more easily overlooked as they are colorless, long and narrow, with crystals and phosphates frequently embedded in them. They are frequently described as of "ground-glass" appearance, and are constantly present in chronic Bright's disease.

Blood.—In highly-colored urine blood may be detected from the presence of corpuscles under the microscope. If a large quantity be present, the urine will be alkaline and albuminous. The hæmin reaction is useful for the detection of blood in the sediment. It is applied as follows: A little of the sediment is placed on a slide with a drop of glacial acetic acid, and a few crystals of chloride of sodium. Heat is cautiously applied until all the liquid has evaporated, and oblong red-brown crystals of hæmin will be easily recognized under the microscope if blood be present.

Report.—It may be useful to give here a form of report which is often employed by analysts after the qualitative examination of urine according to the above scheme. It should be modified or amplified as the case may require, and sometimes it is as well to give a full account of the microscopical appearance of the deposit, and adding a few remarks at the end of the report upon any of the abnormal features. A sample of diabetic urine will, perhaps, be best taken as an illustration. It would run somewhat as follows: "I beg to report the result of my examination of a sample of urine received from on the inst. The urine was of a light yellow color and measured 1,800 cc. or 64 fluid ounces.

Specific gravity, at 60° F., 1.030
Reaction, faintly acid.
Albumin, absent.
Sugar, present in large amount.
Biliary salts and pigments, absent.
Deposit, mucus.
Microscopical examination revealed nothing abnormal.

(Signed)———."

QUANTITATIVE DETERMINATIONS.

Acidity.—Certain gout specialists, in particular, lay great stress upon the determination of the acidity. This is because, under the administration of salicylate of sodium, the uric acid which has accumulated in the blood and tissues is excreted, and the rise in acidity considerable. As the acidity is diminished after meals, it is advisable to be supplied with the whole excretion of twenty-four hours, *i.e.*, from 9 a.m. to 9 a.m. Acidity should be determined volumetrically in 100 cc. of urine by means of standard caustic soda solution, using a few drops of a proof-spirit solution of phenol-phtalein as indicator. Each cc. of the solution should be equal to 0.010 gramme of oxalic acid, and it should be reported in terms as equivalent to parts per thousand. Normal urine has an acidity equivalent to 2.5 to 3.0 grammes of oxalic acid ($C_2H_2O_4.2H_2O$) per litre. In gout, under the influences mentioned, and in acute febrile diseases, it rises to 6 grammes, or even more. Many medical men prefer statements of acidity, uric acid, and urea in the number of grains excreted per twenty-four hours.

Albumin.—The most satisfactory method of determining the amount of albumin in urine is by means of Esbach's albuminometer. The instrument consists of a test-tube with special graduations to mark the proportions of albumin. The urine is poured into the mark U, and a saturated solution of picric acid added to the mark R, the tube well shaken, and allowed to stand at rest for 24 hours. At the end of that time the

Why Not Put Up your Own

WHEN YOU CAN BUY

Complete Containers

AT REASONABLE PRICES?

You Can Save the Manufacturers' Profit!

For Samples of Containers with Prices, for putting up or packaging any of the following goods, drop us a card:

Condition Powders,
Folding Cartons, or Cartons and Wraps.
Bird Seed,
Folding Cartons, or Cartons and Wraps.
Chloride of Lime,
Impervious Boxes and Wraps.
Baking Powder,
Boxes and Wraps.
Compound Licorice Powder,
Boxes and Wraps.
Powdered Borax,
Folding Cartons.
Cream Tartar,
Folding Cartons.
Soap Bark,
Folding Cartons, or Cartons and Wraps.
Epsom Salts,
Folding Cartons, or Cartons and Wraps.
Senna Leaves,
Folding Cartons, or Cartons and Wraps.
Cough Drops,
Folding Cartons—2 ounce and 4 ounce.

Or if there are any other lines you wish to put up, write us about them.

LAWSON & JONES,
LONDON, Canada.

FINE RUBBER GOODS

Bulb Enemas
Water Bottles
Fountain Syringes
Atomizers
Ice Bags
Invalid Rings
Tubing
Combination Fountains and Water Bottles
Stoppers
Nipples
Air Pillows
Bands
Operating Pads
Finger Cots
Nasal Douches
Bed Pans
Teething Rings
Medicine Droppers
Hospital Sheeting, etc.

ALPHA RUBBER COMPANY
(LIMITED)
MONTREAL. - - QUE.

SIMPLE, BUT SURE!

Somerville's M. F. Cough Chewing Gum

FIVE CENTS PER BAR
TWENTY BARS ON A HANDSOME STANDING CARD

THE WHOLESALE TRADE HAVE IT

PRICE 65c. PER CARD

C. R. SOMERVILLE, - LONDON, Ont.

Wampole's

BEEF, WINE, AND IRON.

In Pint Bottles..... .....$5 00 per doz.
Winchester (½ Imp. Gal.)..... 2 00 each.
Imp. Gallon, in 5 gal. lots, and over 3 50 per gal.

With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

¼ Gross lots, and over.....$60 00 per gross.
(Packed in One-Dozen Cases.)

We use a Pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

We invite comparison with other manufacturers, and will cheerfully furnish samples for that purpose.

Your early orders and enquiries solicited through Wholesale Jobbers or direct from us.

Henry K. Wampole & Co.,
MANUFACTURING PHARMACISTS,
Philadelphia, Pa.

Canadian Branch:
36 and 38 Lombard Street, TORONTO.

Wine of the Extract of Cod Liver

Sold by all first-class Chemists and Druggists

CHEVRIER

General Depot :—PARIS, 21, Faubourg Montmarte, 21

This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of **Paris,** possesses at the same time the active principles of **Cod Liver Oil** and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of **Cod Liver Oil,** is invaluable in **Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis,** and all diseases of the **Chest.**

Wine of the Extract of Cod Liver with Creosote

General Depot:—PARIS, 21, Faubourg Montmarte, 21

CHEVRIER

Sold by all first-class Chemists and Druggists

The beech-tree Creosote checks the destructive work of **Pulmonary Consumption,** as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with **Cod Liver Oil,** makes the **Wine of the Extract of Cod Liver with Creosote** an excellent remedy against pronounced or threatened **Consumption.**

Radlauer's Somnal

AETHYL-CHLORALURETHAN

(REGISTERED)

THE NEWEST AND MOST EFFICIENT SOPORIFIC REMEDY

Taken in doses of 32 grains, or half a teaspoonful, in milk, ale, or cognac, produces in half an hour a quiet refreshing sleep, lasting from six to eight hours, with no unpleasant after effects. The effects of SOMNAL are more pleasant than those of Chloral Hydrate and Morphia. Experiments made in the Town Hospitals, Moabit and Friedrichshain, Konigliche Charité and Konigliche Universitats Poliklinik, Berlin, have shown that SOMNAL does not accelerate the pulse and does not upset the stomach. SOMNAL is especially recommended for Nervous Insomnia, Neurasthenia, Spinal Complaints, Infectious Diseases, Paralysis, Melancholia, Hysteria, Morphinismus, and Diabetes. The low price of SOMNAL enables its use in the poor and workmen's practice and in hospitals.

Radlauer's Antinervin

(SALICYLE BROMANILIDE)

In the form of Powder, the most efficacious Antipyretic, Antineuralgic, and Antinervine

ANTINERVIN replaces and surpasses Antipyrin, has no hurtful second ary effects, and is cheaper. Taken in doses of 8 grains four times a day, it is an excellent remedy for Feverish, Catarrhal, and Rheumatic Pains.

ANTINERVIN is of especial service in cases of Influenza, Neuralgia, Asthma, Tuberculose, Yellow Fever, Malaria, Migraine, Gout, Rheumatism in the Joints, Diptheritis, and other typical Fevers

MANY GOLD MEDALS HAVE BEEN AWARDED

S. RADLAUER, Kronen Apotheke, FRIEDRICHSTRASSE, 160 BERLIN, W.

W. J. DYAS, Toronto, Ontario - Wholesale Agent for Canada

BUY ADAMS' ROOT BEER

—Pays Well, Sells Well, and Gives Satisfaction

RETAIL, 10 AND 25 CTS.; WHOLESALE, 90C. AND $1.75 PER DOZ., $10.00 AND $20.00 PER GROSS

Place it on your list and order from your next wholesale representative.

THE CANADIAN SPECIALTY COMPANY

DOMINION AGENTS — TORONTO, ONTARIO

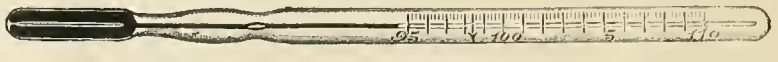
"THE TWIN"

HALF-MINUTE

Clinical Thermometer

FOR QUICK REGISTRATION OF TEMPERATURE

INDELIBLE BLACK



PATENTED MARCH 25, 1890

The most Substantial Sensitive Thermometer ever offered to the Medical Profession.

With the atmospheric register at 60°, if "THE TWIN" be immersed in warm water of 105°, the mercury will reach that degree in less than **20 Seconds.**

The welding the two bulbs into one without any intervening space renders "THE TWIN" much stronger and less liable to break than any other heretofore offered.

It will also be found much more convenient to carry, requiring less room in a case or in the vest pocket. For these reasons, as well as for its **Guaranteed Accuracy,** "THE TWIN" is universally recommended by the medical profession.

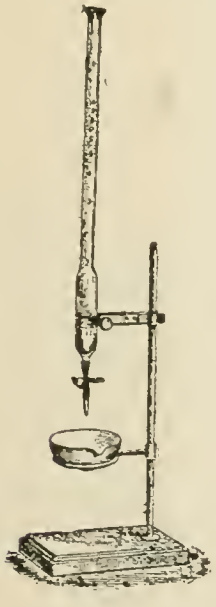
FOR SALE BY ALL DEALERS. $2.00 EACH

25 per cent. discount to all doctors who mention the "Canadian Druggist"; if in gold with chain and pin, $2 net.

SOLE AGENTS : **S. B. CHANDLER & SON, Toronto, Canada**

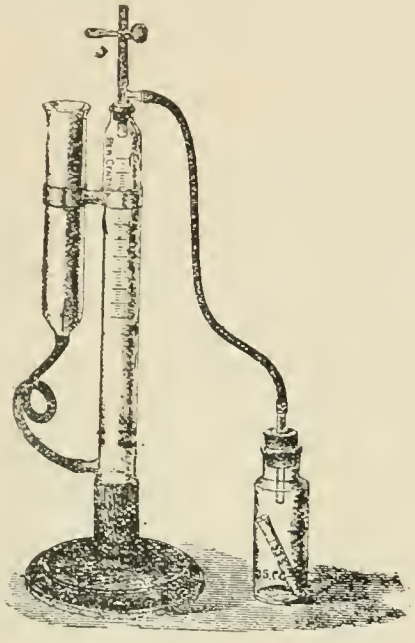
coagulated albuminous precipitate will have settled, and the number corresponding to the upper level of the deposit is noted. This figure represents parts per thousand or grammes of albumin per litre of urine. Care must be taken that alkaloids or peptones are not present or the result will be vitiated. Coagulation by means of the heat and acid test may also be employed, but it is very tedious. The precipitate must be collected on a tarred filter paper, dried and weighed.

Sugar.—There are two well-recognized methods of determining sugar—Fehling's and Pavy's. The objection to Fehling's method is the uncertainty of the end reaction. Pavy's method is not open to this objection, but it is really too delicate, and affected by uric acid and creatinine, whilst the ammoniacal fumes are unpleasant. The cupric-cyanide process of Mr. A. W. Gerrard is a modification of Fehling, which has all the advantages of Pavy's method without the excessive delicacy to other bodies. As recently improved, it consists of the following: (1) Copper sulphate, re-crystallized, 69.3 grammes, distilled water to 500 cc.; (2) tartarated soda, crystallized, 175 grammes; caustic soda, pure, 76.56 grammes; distilled water to 500 cc. Take 5 cc. of each of these solutions, and dilute with distilled water to 50 cc.; 25 cc. of this mixture is heated, and a solution of cyanide of potassium run in until the blue color is just discharged. (The cyanide solution may be made of any strength, but about 35 grammes in 500 cc. will be best.) Add the remaining 25 cc. of the mixture, boil again, and run in



the urine from a burette, stopping the flow of the urine directly the blue color is again discharged. With diabetic urine, it will be necessary to dilute one volume to ten volumes with water, and use this diluted liquid. As 5 cc. of the copper solution is equal to 0.05 gramme of glucose, the volume of urine employed to discharge the color will contain 0.05 gramme of sugar. To obtain the percentage a simple proportion sum is necessary. Thus suppose 12.8 cc. of urine were used, then 12.8 : 0.05 : 100 : 0.39, and if the urine was diluted ten times that would give 3.9 as the percentage. Multiplication of the percentage by 4.375 will give, of course, the number of grains per fluid ounce.

Gerrard's glycosometer (patented) consists of a burette graduated to read the



percentage of sugar or grains per ounce, without the need of calculation.

Urea.—The best method of determining urea is that depending upon the liberation of nitrogen by means of hypobromide of sodium. Several forms of ureometer or ureameter have been devised, but that of Mr. A. W. Gerrard is one of the best and simplest. It is much more accurate than the modified form known as Cruise's, or Doremus' ureometer, which invariably gives results considerably below the truth. Solution of hypobromide is made by dissolving 100 grammes caustic soda in 250 cc. distilled water, and adding 25 cc. of bromine. It is much more satisfactory, owing to the unstable nature of the solution, to keep the caustic solution alone. Then, as required, the bromine can be added for each determination by means of the capsules of bromine. These glass capsules contain 2.2 cc. of bromine, and it is only necessary to drop one with sufficient force into 25 cc. of the caustic solution to liberate the bromine without any smell or danger.

Directions for Using the Uremeter.—Fill the large arm of the uremeter with water, and adjust the small arm so that the level is at O in the large arm, and just covers the bottom of the small. See that the clip at the top is quite tight. Place 25 cc. of the hypobromite solution in the bottle, and lower the tube containing 5 cc. of urine into the same vessel, without spilling any of its contents. Having inserted the india-rubber cork firmly, and adjusted the level of the the liquid again, by means of the clip, gradually upset the urine into the hypobromite by inclining the bottle. Nitrogen is immediately evolved, and the increased pressure lowers the level of the water. At the expiration of a few minutes, when no more gas is being evolved, immerse the bottle in cold water to reduce the temperature, and again adjust the arm so that the water in both tubes is level. The level of the liquid is read off from the graduations on the arm in terms of percentage. The average amount of urea in normal urine is about 2 per cent.

Uric Acid.—The tendency of uric acid to form concretions, and its importance as a factor in gout, have led many physicians to desire a quantitative determination. Several methods, based upon the reduction action of uric acid upon alkaline cupric solution, have been found, in practice, very misleading. Denigès (*Bull. Soc. Chim.*, 11, 226-230) recommends the following: A. Dissolve 150 grammes of ammonium chloride and 100 grammes magnesium chloride in strong ammonia to 500 cc., and add an equal volume of $\frac{N}{10}$ silver nitrate solution. B. Dissolve 10 grammes pure potassic cyanide and 10 cc. strong ammonia in 500 cc. water. Take 100 cc. of urine, and add 25 cc. of A filter, and 20 cc. of B, and a few drops of 20 per cent. solution of potassic iodide with 2 per cent. of ammonia added to 100 cc. of the filtrate. This liquid is then treated with $\frac{N}{10}$ silver nitrate solution, until a persistent turbidity is obtained. The number of cc. employed, with one-fourth added (as an aliquot part was taken), multiplied by 0.00168, gives the percentage of uric acid.

Albumin is stated not to interfere with the result, but iodides must be removed by adding nitric acid and excess of silver nitrate. This is in turn removed by sodium chloride and the titration conducted as above. The percentage of uric acid varies from 0.04 to 0.175 per cent.

Phosphates. — The uranic acetate method of determining phosphates is most suitable. The solutions required are made as follows: 35 grammes uranic acetate, 25 cc. glacial acetic acid, distilled water to 1 litre. This should be titrated upon a solution of ammonio-sodic phosphate, 5.886 grammes in a litre, so that each cc. represents 9 005 grammes each of sodic acetate and acetic acid in a litre. Also a 5 per cent. solution of potassic ferro-cyanide freshly prepared. Mix 50 cc. of the filtered urine with 5 cc. of the sodic acetate solution and warm the mixture. Run in standard uranic solution until precipitation does not any longer appear. A drop is then removed by means of a glass rod, and allowed to drop into a drop of the ferro-cyanide solution placed on a white plate. So long as no brown color appears, the uranic solution can be added. When this occurs, note the number of cc. of uranic solution used, and this number multiplied by 0.005 and by 2 gives the percentage of phosphoric acid. —*British and Colonial Druggist's Diary*

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

FEBRUARY 15TH, 1895.

Publisher's Notices.

We desire to emphasize the following:

The CANADIAN DRUGGIST is published on the *fifteenth* of each month.

Communications or articles for insertion should reach this office by the *seventh.*

Changes of advertisements, or copy for new advertisements, should reach us by the *fifth* of the month to ensure proper position.

Any irregularity in receipt of this journal should be at once reported.

Advertisements under the headings of Business for Sale, Business Wanted, Situations Vacant, Situations Wanted, or Goods for Exchange, will receive *one insertion free.*

Communications are invited on all matters pertaining to the drug and chemical trades.

All communications must be accompanied by the name of the writer, not necessarily for publication.

A careful perusal of *all* the advertisements is requested, and, when ordering special lines mentioned there, state that you "saw it in the CANADIAN DRUGGIST."

Advertisements of Business for Sale and Wanted, Situations Wanted, etc., are on page 40 of this issue.

Remember,—the address of the CANADIAN DRUGGIST is now 20 Bay Street, Toronto, Canada.

Exchange of Ideas.

It seems somewhat surprising that out of the large number of druggists in business in this country, there are so few who realize the benefit that must ensue from a liberal exchange of ideas in reference to matters connected with the trade. From time to time we have asked our readers to send for publication anything tending to the advancement of Pharmacy, the solving of perplexing business questions, the unravelling of difficulties in the laboratory or at the dispensing counter, or the everyday happenings which, if minor importance to one, may be of still greater importance to others. Human nature is naturally selfish, especially if not allowed free intercourse with its neighbor, and nothing tends to make us as selfish as this keeping everything to oneself—our experiences, our wants, and our acquired knowledge. Our desire to know more, to find out something which has not revealed itself to us, or not been revealed by others, should encourage us to come out of ourselves, to impart, as well as to ask for, information, to endeavor to guide others as well as to be guided by others, and thus to acquire many things which, in the ordinary routine of business or even in text-books, has not heretofore been presented. To take even a selfish view of the subject, just imagine what we would gain if one of us with an enquiring turn gives to his confrères the benefit of one fact coming under his notice which he believes to be of material help, when he may have the benefit of the experiences of hundreds which may be induced to follow his example in this respect. We are all too prone to lock up within ourselves that which might be of great help to others, and which to impart would leave us none the poorer. We would urge upon druggists the expediency of giving this subject serious consideration and making a commencement by sending us something which they themselves have found to be valuable, and of which others may have no knowledge. This investment of one thought will, in all probability, be the means of bringing in a harvest of other people's thoughts, some of which may be more profitable to us than years of study or experimental work The columns of drug journals are always open, and only too glad to receive any such contributions, and in doing this the journalist endeavors to do his share towards a subject so evidently beneficial as an exchange of ideas.

The Result of Co-operation.

At the annual meeting of the directors and shareholders of this company, held in Hamilton recently, a most satisfactory showing of the year's work was presented. The retiring directors were re-elected unanimously, and a consulting board was selected from Toronto shareholders to assist their representative director in maturing plans to meet their needs.

The first issue of twenty thousand dollars worth of stock having been taken up over a year ago, another issue has been made at a premium, and already, we understand, a considerable amount of this has been taken.

This is purely a druggists' company, as only they can buy or hold stock; and as the venture is entirely a new method of meeting a difficulty, its successful issue will doubtless be watched with considerable interest, and, not alone by those in whose interests it is, but by those against whose interests it is.

The trade difficulties with which Ontario druggists have had recently to contend seem only to have cemented them more closely together. The initiative work of this company affords a fair indication of what the future may be if co-operation in business lines exists.

Montreal Notes.

Business is dull in Montreal, and not only the pharmacists say so, but all retail business men as well. As a dry goods man said a few days ago, "There could not be a better time for a Federal election than now."

The students' incipient rebellion at the College of Pharmacy has subsided. If the number offering for the botany class next year will warrant it, the board will appoint a French lecturer. It must not, however, be forgotten that the college is self-supporting, and ways and means must be taken into consideration. Meanwhile, Professor Bemrose is giving as good a course of botany as can be obtained in Montreal, either French or English.

Commercial travellers are beginning to appear quite frequently in Montreal from Toronto houses, and they hold out temptations, and show up-to-date goods, especially in sundries. American travellers are more frequent now than formerly.

Messrs. Lyman, Sons & Co. now represent the Pasteur Institute of New York, and have brought in large quantities of "serum" made by Dr. Roux's formula, so there is no excuse for not giving the new remedy a trial wherever an epidemic of this terrible disease exists.

The prescription business becomes more difficult every day, and the pharmacist who scrupulously desires to obey the instructions of the physician has an anxious time of it. In Montreal the products of no less than six different pill and tablet manufacturers are constantly being prescribed, and woe betide the unlucky pharmacist who happens to supply an Upjohn's quinine pill for a Warner's, or *vice versa*, especially if the prescriber happens to be a physician who has absorbed all the enterprising drummer has told him. A little discretion should be left to the dispenser, as it is impossible for one house to keep a full line of pills by six or seven different makers.

The committee appointed to enquire into the charge that the questions at the last Quebec examinations had got into the hands of certain students has reported that, after a full and exhaustive enquiry, there is no ground whatever for the charge.

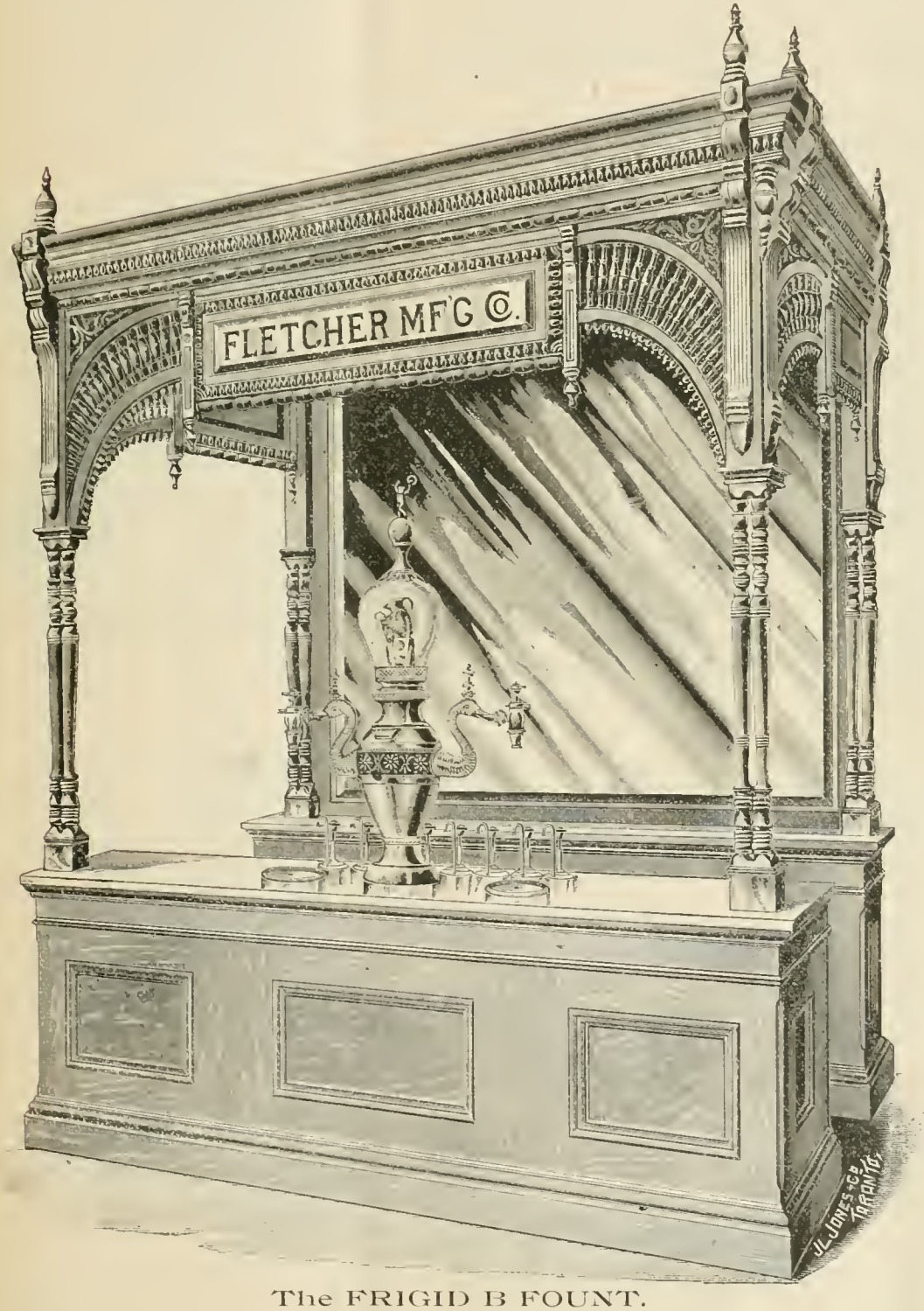
Fletcher Manufacturing Co.,

440 YONGE STREET, TORONTO.

Manufacturers of and Dealers in

Soda Fountains - Generators - Cylinders - Freezers

And every other article necessary for carrying on the Soda Water Business.



The FRIGID B FOUNT.

THE accompanying fount shows an entirely new idea for counter apparatus.

The Canopy is made from natural hardwood, highly finished.

The Fount is heavily silver-plated on pure white metal; all connections and attachments are made from pure block tin, thereby insuring Soda Water absolutely free from the metal poison so often found in old apparatus.

The Body of Fount is double, having a dead air space between inside and outside linings. Inside of this is a coil of block tin pipe, reaching to where our name-plate appears. This plate is hinged so that it may be raised when filling body with broken ice, for which we supply a special funnel free.

Fount has EIGHT PATENT PNEUMATIC SYRUP JARS and TWO PATENT DRIP PLATES fitted into slab under Soda Taps. These plates can be lifted out for purpose of packing ice around coolers and syrup jars.

Cooler box is fitted under counter, is easy of access, and no trouble to fill with ice.

We supply with the Fount: *Canopy, Marble Slab, Eight Patent Syrup Jars, Cooler Box, Six Silver-Plated Tumbler Holders, Twelve Tumblers,* and all connections and pipes ready for attaching to cylinder.

We make this Fount in Style A, without Canopy, and a smaller slab, but with all other attachments the same as Style B. F.O.B. Toronto. Counter extra in all cases. Any style made to order.

Dealers in Fruit Oils, Fruit Extracts, Flavorings, Etc.

WRITE FOR CATALOGUE

Buttermilk

- Toilet Soap.

¼ size facsimile of package.

Over 2,000,000 Cakes Sold in 1892.

The Best Selling Toilet Soap in the World.

Excels any 25-cent Soap on the Market. Nets the Retailer a good profit.

When sold at a very popular price it will not remain on your counters. Try a sample lot.

The quality of this soap is GUARANTEED. See that the name "BUTTERMILK" is printed as above "in green bronze," and the name "Cosmo Buttermilk Soap Company, Chicago," in diamond on end of package. Beware of imitations.

COSMO BUTTERMILK SOAP CO.,
165 Wabash Ave., CHICAGO.
F.W.HUDSON & CO, TORONTO
Sole Agents for Canada.

KENNEDY'S MAGIC CATARRH SNUFF

(REGISTERED)

A POSITIVE CURE FOR

CATARRH
COLD IN THE HEAD
CATARRHAL DEAFNESS
HEADACHE, Etc.

It is reliable, safe, and sure, giving instant relief in the most distressing cases.

PRICE, 25 CENTS.

Wholesale of **Kerry, Watson & Co., Montreal. Lyman, Knox & Co., Montreal and Toronto.**
And all leading Druggists.

BURLAND'S
OLD DOMINION CRESCENT BRAND

CINNAMON PILLS

THE ONLY GENUINE RELIEF FOR LADIES.

ASK your Druggist for "Burland's Old Dominion Crescent Brand **Cinnamon Pills.**" Shallow rectangular metallic boxes, sealed with crescent. Absolutely safe and reliable. Refuse all spurious and harmful imitations. Upon receipt of six cents in stamps we will reply by return mail, giving full particulars in plain envelope. Address

BURLAND MEDICAL CO.,
Morse Building, NEW YORK CITY.
Please mention this paper.

NOTICE.

We have just been appointed Wholesale Agents for the Dominion of Canada for the sale of

Payson's Indelible Ink.

All Orders will have our prompt attention.

The London Drug Co.

LONDON, ONT.

KERRY, WATSON & CO., - MONTREAL.

Wm. Radam's
MICROBE KILLER . .

WILLIAM ELLIS
Sole Manufacturer for the Provinces of Ontario and Quebec.
(The factory having been removed from Toronto.)

SOLD BY ALL WHOLESALE DRUGGISTS.

HEAD OFFICE AND FACTORY:
98 DUNDAS ST., LONDON, ONT.

DICK'S UNIVERSAL MEDICINES FOR HORSES AND CATTLE

They always give entire satisfaction, and there are no medicines in the market that can compare with them.
Thrifty farmers, stockowners and carters all over the country are, by actual results, realizing that they cannot afford to be without a supply of
Dick's Blood Purifier Price 50c.
Dick's Blister, for Curbs, Spavins, Swellings, etc. Price 50c.
Dick's Liniment for Cuts, Sprains, Bruises, etc. Price 25c.
Dick's Ointment. Price 25c.
Circulars and advertising cards furnished.

DICK & CO., P.O.Box 482, MONTREAL.

PRI-MO LADIES' SYRINGE.
IT IS RETURN FLOW
USED WITHOUT BED PAN.
PERFECTLY ASEPTIC.
ANATOMICALLY CORRECT
NOT A WEDGE.
WE ISSUE A PAMPHLET THAT WILL INTEREST YOU.
E.J. HUSSEY & CO.
80 John St. New York
INTRODUCERS OF NOVELTIES OF MERIT

PER DOZ.
No. 1. Nozzle and Shield, with Outlet Tubing . . $30
No. 2. " " Complete 2-qt. Fountain, 48
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IMPORTERS,
LONDON, - ONTARIO.

Ontario College of Pharmacy Council Meeting.

The regular semi-annual meeting of the Council of the Ontario College of Pharmacy opened in the Board room of the college building, Gerrard street east, Toronto, at 3 o'clock p.m., Tuesday, Feb. 5th, 1895. The members present were: Messrs. J. H. Mackenzie, J. A. Clark, C. K. McGregor, C. D. Daniel, D. H. MacLaren, J. G. Shuff, Henry Watters, J. M. Hargreaves, and W. A. Karn.

In the absence of the president, Mr. A. B. Petrie, the vice-president, Mr. J. H. Mackenzie, took the chair, and, in doing so, expressed his regret at the absence of the president, who was then on his way to the antipodes on a trip combining business and pleasure. Speaking for himself, and for every member of the council, Mr. Mackenzie continued, he wished Mr. Petrie a pleasant, prosperous, and beneficial voyage, and a safe return. (Hear, hear.)

The minutes of the last council meeting, having been published and placed in the hands of every member, were accepted as read, and adopted as printed.

Letters were read from Messrs. D'Avignon and Polson, members of council, announcing their inability to be present at the council meeting.

A large number of other communications were read, and referred to the various committees for attention. Three or four were dealt with directly by council, among them being one from Dr. J. W. Campbell, of Kingston, requesting to be registered for a drug store at 94 Avenue road, Toronto. It being reported, however, that this store was owned by a student of the college who has, so far, failed to secure his diploma, the council resolved, on motion of Messrs. Watters and McGregor: That the application of Dr. J. W. Campbell, Kingston, *re* registration of drug store at 94 Avenue road, be not granted, as it does not appear that he is proprietor of that store, and that the four dollars received from him be returned.

J. H. Walker, St. Catharines, wrote protesting against the action of the Registrar in charging him with three years' arrears on a drug store on College street, Toronto, which he claimed never to have owned, but only operated for a while for another. Inasmuch as the Registrar had never received notification of Mr. Walker's retirement from business, the council unanimously, and without discussion, endorsed the action of the Registrar.

In response to requests from the Western Fair and Toronto Industrial Exhibition boards, the council appointed Messrs. Shuff and Karn to represent them at London, and Messrs. Mackenzie and Daniel to act on the Toronto board. The council then adjourned.

Second Day.

Upon resuming business on Wednesday morning, with Vice-President Mackenzie again in the chair, all the members present the previous day were in their places, and, in addition, Mr. John McKee was present.

No committees were ready to report, and an adjournment was accordingly made until after lunch, when the Infringement Committee reported as follows through its chairman, Mr. Watters:

Report of the Infringement Committee:

Toronto, February 6, 1895.

Your committee beg to report that, since last meeting of council, a vigorous attack has been made on druggists in arrears, resulting in the removal from the Registrar's books of the names of nearly all those in arrears.

An attempt has also been made to put a stop to every case of infringement brought to the notice of the committee that offered reasonable prospect of conviction. This attempt has been attended with less success than we could have desired, owing to the difficulty of obtaining the services of a competent and reliable detective. Your committee would ask for the approval of the council to secure the best possible detective talent obtainable to undertake a thorough and determined prosecution of all cases of infringement.

In reference to the case of Dr. R. B. Wells, Durham, your committee would ask the council to confirm the action already taken in refusing to register Dr. Wells.

In the case of the Oakville Pharmacy, your committee would recommend that the matter be left in the hands of the Registrar, to be dealt with by him.

Your committee would ask that the sum of $200 be placed at the disposal of the chairman.

(Signed) Henry Watters,
Chairman.

Upon motion of Messrs. Watters and Daniel, the report was received.

Upon a second motion from the same gentlemen that the report be adopted, some discussion arose upon the proposal to enter upon an active campaign against suspected law-breakers, and every speaker warmly supported the position taken by the committee, urging that no expense be spared to bring offenders to justice.

Mr. Clark asked if the simple adoption of the report would be considered sufficient authority for the committee to take action, and, upon the chairman's affirmative reply, the report was adopted with unanimity, and the council adjourned until Thursday morning.

Third Day.

The council resumed on Thursday morning at 10.30 o'clock, with Vice-President J. H. Mackenzie in the chair, and all members previously in attendance present. Three or four communications were referred to the proper committees, and an adjournment made until 11.30 o'clock, when the Executive Committee presented the following report.

Report No. 1 of the Executive and Finance Committee:

To the President and Members of the Council.

Gentlemen, — Your committee have examined carefully the following accounts, and recommend their payment, subject to adjustment, by the Registrar-Treasurer, of two small accounts, viz.:

Lyman Bros	$ 86 51
Lyman, Knox & Co	57 93
Vannevar & Co	1 50
Elliot & Co	33 70
James Bain & Co	20 85
Empire Printing Co	15 75
Globe Printing Co	17 10
Mail Printing Co	18 19
Monetary Times	26 25
Map and School Supply Co	202 14
Toronto Rubber Co	4 22
P. Freysing & Co	5 13
J. A. Carveth & Co	3 38
J. H. Dunlop	1 20
Simcoe Ice Co	1 20
John Wright	75
Jas. R. Mills	47 06
Whitall, Tatum & Co	5 04
Edgar & Malone	20 00
Brown Bros	2 25
Rolph, Smith & Co	15 45
A. P. Watts	11 25
Bell Telephone Co	23 50
W. Lloyd Wood	9 24
Mrs. Parsons (scrubbing)	5 50
Expenses *re* committee meeting, December, 1894:	
W. A. Karn	$ 7 50
H. Watters	29 08
C. K. McGregor	7 00
J. A. Clark	4 75
Total	$683 42

Your committee would again recommend that in all cases the Registrar-Treasurer only shall issue orders for supplies and repairs to the building, and in cases where any additions are required on the building or the furniture, such shall only be undertaken by the authority of the chairman of the Executive and Finance Committee.

Your committee have examined the reports of the Registrar-Treasurer and auditors, and recommend their adoption.

Your committee would further recommend that the Registrar-Treasurer deposit one thousand dollars ($1,000), from the current account of the college, in the savings bank department of the bank, and that the President and Registrar-Treasurer pay this amount to the holders of the mortgage on the college on May 30th, 1895. Upon payment of the said amount the mortgage indebtedness on the college building will be reduced to thirteen thousand dollars ($13,000).

Regarding the covering of the remainder of the steam pipes with mineral wool, your committee would recommend that this matter be laid over until the August meeting, 1895.

Your committee would recommend that the minutes of this council meeting be printed in pamphlet form, similar to the report of the last semi-annual meeting of the council, and a copy be mailed to each

member of the college, and the Registrar-Treasurer is hereby authorized to carry out this recommendation, and that any other notice requiring announcement by the college be incorporated in this pamphlet, and that special prominence be given to the resolutions, passed last council meeing, that all members of the college who shall pay their annual renewal fees on or before the first day of May receive a rebate of two dollars ($2), commencing with the year 1895-6. The fee not being paid on or before the 1st day of May in each year, no rebate shall be allowed.

And your committee would further recommend that the Registrar-Treasurer send printed post-card notices to each member of the college on or about April 1st, relating to the payment of the annual fee and the rebate permitted upon prompt payment on or before the first day of May.

Your committee would recommend that the Registrar-Treasurer be authorized to issue printed notices to the members of the college regarding the elections to be held of members of the council of the college, under By-law X, subsection 4.

Respectfully submitted,

D. H. MacLaren,
Chairman *pro tem.*

Upon motion for the adoption of the report, the chairman called attention to the satisfactory condition of the college finances, and congratulated the council upon the fact that the mortgage debt was now practically reduced to $13,000. This was the amount of the debt upon the old building, so that the new building, with its magnificent equipment, which was alone worth $10,000, had been paid for. They were paying off the debt as fast as the terms of the mortgage would permit, or the mortgagors accept the money; in fact, it could be paid off still more rapidly if the holders of the mortgage would permit it.

Mr. J. A. Clark endorsed the President's remarks, and called attention to the fact that, in addition to reducing the debt on the college, the council had been enabled to reduce the members' fees fifty per centum, when paid promptly.

Mr. H. Watters expressed his pleasure and satisfaction at the report before them, and also at the small cost to which the council had been put for law expenses.

The report was then adopted, and the council adjourned.

After devoting some hours further to committee work, the council again convened at 3.45 o'clock Thursday afternoon, when Mr. C. D. Daniel presented the following report of the Committee on Education:

EDUCATIONAL REPORT.

(1) Your committee beg to report that very careful attention has been given to the many questions referred. With reference to the internal working of the college, your committee are pleased with the results of the past year. The dean and members of the faculty have been faithful in the discharge of their duty, and every effort has been made to perfect the students and thoroughly fit them for a successful business life. The high standard has been maintained and reports are constantly being received of the high positions the graduates of the Ontario College of Pharmacy hold in different parts of Canada and the United States.

The junior course recently finished was very successful. A larger number of students passed through the course than at any previous time, and the popularity of the college is attested by the fact that a number of students are in attendance who were three-year men, and consequently not obliged to take the course, and your committee desire to draw attention to the letter from Robert Brydon, Esq., a member of the Board of Pharmacy of Virginia, and it is a matter of congratulation that our high standard is being recoghized, and that the graduates of our college in distant parts sustain the reputation of the college, and we recommend that Mr. Brydon's letter be incorporated in this report.

Board of Pharmacy of Virginia,
Danville, Va., Jan. 20, 1895.

Isaac T. Lewis, Esq., Toronto:

Dear Sir,—Our Board of Pharmacy is anxious to obtain from other Boards and Colleges of Pharmacy as much information as possible in regard to educational requirements for apprentices, and knowing your college to be in the lead in such kind of legislation I would be greatly obliged by your sending me a copy of your laws on the subject. Our people are not educated up to the idea of looking upon druggists as professional men, and only by action as embraced in your law can we hope to obtain that desired position. Two of your graduates are living here, and have made for themselves enviable names as competent pharmacists, thus sustaining the reputation of your college. As a former citizen of Toronto, and apprentice of the old firm of Lyman, Elliot & Co., as well as my late brother, Mr. William Brydon, having been one of your examiners, I take a great interest in your college, and am glad to know of the high character to which it has attained, as well as its continued success.

Yours truly,
Robert Brydon.

(2) Your committee recommend that the following amounts be appropriated to the different departments for the purchase of apparatus that is absolutely necessary to the proper working of the college:

Department of botany and chemistry:	
Botanical models of plants	$ 75
Chemical and physical apparatus, including spectroscope	150
	$225
Department of Practical and Analytical Chemistry	75
Department of Materia Medica and Microscopy	142
Department of Pharmacy	75

In the Department of Pharmacy there is an unexpended amount of previous appropriations ($132), and your committee recommend that authority to expend this amount be given.

(3) With reference to the John Roberts scholarship, your committee would suggest that steps be taken to give practical shape to the bequest by carrying out the provisions embodied therein, with the following limitations, as approved by Mr. J. Roberts Allen, the executor of the estate, viz., that the scholarship and medal be restricted to candidates at the May qualifying examination who present themselves the first time for examination, and show qualifications at that examination entitling them to the award of merit specified, and who have served apprenticeship in the Province of Ontario, and have taken two courses of lectures in the Ontario College of Pharmacy.

(4) Your committee, in view of the expiration of the contracts of the faculty, recommend that the Executive and Finance Committee renew the same at this meeting.

(5) Your committee recommend that, in view of the heavy work to be performed by the janitor during the severe winter months, an assistant to look after fires be engaged during the months of February and March; salary $4 per week. Also, that the boy now employed in looking after the cloak-room and other matters be retained during the balance of the season.

(6) Your committee are of the opinion that the floor of the upper laboratory should be covered to prevent liquids going through the cracks, and seriously inconveniencing the occupants of the lower laboratory, and recommend this matter to the attention of the Committee on Finance.

(7) It is strongly urged that, as the dean's and examiners' reports form part of this report, they all be entered upon the minutes of this council.

[(8) This clause was referred back, and appears in amended form in Report No. 2.]

(9) Your committee have examined the report of the Examining Board, and recommend that diplomas be granted to the candidates named in the report hereto attached.

(10) Respecting the recommendation of discontinuing the granting of medals for any purpose other than general proficiency, we would recommend that no change be made in the regulations at the present time.

(11) Respecting the recommendation regarding the withholding of rating from candidates who have not completed full apprenticeships, your committee concur.

(12) Your committee also recommend that the Executive and Finance Committees provide, if possible, the necessary dispensing scales as requested.

(13) Your committee recommend that the general proficiency medal be granted to the candidate at the December examination who conforms to the regulation standard, provided that the candidate has not failed at any previous examination.

This regulation to apply to the last December examination.

Respectfully submitted,

C. D. DANIEL,
Chairman.

Appended to this report, and forming a part thereof, were the reports of the Dean and Board of Examiners.

The Board of Examiners reported as follows: At the last meeting of the Board of Examiners considerable discussion took place as to the eligibility of any of the candidates for proficiency medals. The standing taken was sufficiently high to warrant them being given, but owing to a regulation adopted by the council in February, 1893, the board felt that a decision by the council would be necessary. Awaiting such decision, I remain, on behalf of the board,

Very respectfully yours,
W. MURCHISON, Chairman.

Following this were given the details of the examinations as have been already published, and then the report made the following recommendations:

That the council consider the desirability of discontinuing the granting of medals for any purpose other than general proficiency;

That in case any candidate be hereafter permitted to write for diploma whose time has not been completed at the time of writing, his rating be withheld until the council has been furnished with evidence of the completion of his full apprenticeship period; and,

That a sufficient number of dispensing scales be procured to complete the equipment of each dispensing desk.

All of which is respectfully submitted,
W. MURCHISON, Chairman.

The Dean reported as follows:

GENTLEMEN,—I have the honor to herewith present my report for the session of 1894-95 to date:

The junior term began on September 11th, 1894, with the matriculation examination. Three candidates only were required to take the examination, and these were all successful.

Lectures commenced on September 13th, and continued without intermission (excepting the usual Thanksgiving holiday and the 'Varsity sports half holiday) until December 12th; 104 students were in attendance during the term. The records of this college show the largest junior class to be that of 1891, which numbered 109 members, and of this number some nine or more droppèd out during the term owing to attacks of diphtheria and typhoid; hence at the recent junior term a larger number of students were carried through the entire term than at any previous session.

In addition to the number of exercises called for by the college time table, the writer gave an extra exercise by way of experiment of one hour each in what he chooses to term "Pharmaceutical Arithmetic." The popularity of these grinds, and the success attained in developing the aptness of the class to grasp and retain the principles involved under the above title, was such as to warrant a continuance of similar exercises in the future.

The junior written examinations began on December 12th, and continued for four consecutive days; practical examinations were held on December 4th. Several members of the class received over 90 per cent. of the total.

First class honors were granted to all students receiving 80 per cent., or more, of the total marks attainable; second-class honors to those attaining from 66 to 80 per cent.; and a pass to all taking 50 per cent. or more.

A hundred and two candidates, in all, entered for the examination, of which number 86 were successful in all subjects and 6 in part subjects. Two were granted ægrotats on account of illness.

Students' names are arranged in order of merit in the accompanying honor list (Exhibit B), and alphabetically in the pass list.

The supplementary examination was held on January 3rd and 4th, 1895, the results of which are submitted herewith. The lectures of the present senior term began on January 8th, with 100 students in attendance, the largest senior class during the record of this college. The gentlemanly conduct of the class is worthy of remark, their relations with the Dean and staff being most courteous and responsive. As students they are veritable plodders, and give us every reason to predict that they will reflect credit upon themselves, and the college as well, at the May examinations.

The question is often asked, What becomes of our graduates? and, with a view to answering this query, the writer has devoted considerable time, during the past eighteen months, in tracing the location of the graduates of 1892-94 inclusively, representing three classes. It has been ascertained that, within twelve months of the date of graduation, 65 per cent. of them are found engaged in business on their own account, or occupying responsible positions as managers of pharmacies in the neighboring provinces or in the United States, or pursuing a course of study in medicine, while the remaining 35 per cent. find positions as managers, or become proprietors of pharmacies in Ontario.

To indicate how readily many obtain positions as head dispensers in certain localities, the writer would mention that during the last three months of 1894 he aided twelve graduates in securing employment in New York city suburbs, where a diploma of this college receives spontaneous recognition, and where the knowledge and skill of its possessors as practical dispensing chemists are so well known.

It is also gratifying to be able to submit that the Manitoba Board admits the thoroughness and efficiency of our course of instruction by registering those now receiving either the college diploma or the certificate, whereas in 1890 requests to recognize holders of the Ontario College of Pharmacy diploma were respectfully declined.

At the last semi annual meeting of the council, the faculty was requested to submit a plan for an extension of the college course. Much as a two years' course is needed, and, in fact, should be inaugurated at the earliest possible date, yet it has been found, after a careful consideration of the matter, that the college building as it now stands, though suited to the accommodation of two classes of students for didactic work, cannot be adapted for instruction in the all-important practical work. Duplicates of the two laboratories would be required, or the present laboratories nearly doubled in size. The faculty desires the council to look over the building with them, with a view to offering suggestions that may not have occurred to the former.

Re matriculation, the staff again urges that an increased standard be adopted, namely, a Third Class Non-Professional Departmental Certificate.

In my last report I called attention to the fact that the Senate of the University of Toronto were discussing the proposed recognition of graduates of the degree Phm.B. (Tor.) as matriculants in medicine, and the courses of instruction in our college as an equivalent for the same subjects as taught by the Medical Faculty. Acting in accordance with the advice of members of the Senate, our representative (Dr. Scott) on that body has withdrawn the proposed statute until such a time as our matriculation shall have been increased. It might be mentioned here that the medical departments of Queen's and McGill Universities, also Trinity School of Medicine, have voluntary recognized the degree mentioned in lieu of matriculation, and some have granted a dispensation on the subjects taken up in our college courses.

It is requested that the council modify the regulation passed at the August, 1893, meeting, making it incumbent upon the members of the staff to take annual inventories of their respective departments. The task is indeed a lengthy and laborious one in certain departments, and, as there is very little material change in a single year, would not a biennial inventory, then, meet the objects to be attained quite as well as the execution of the regulation as it now stands?

It having been deemed prudent to engage a boy to take charge of the students' cloak room, while the classes are in session, all complaints of sneak-thieving (which has proved to be a constant annoyance in the past) have been avoided. It is suggestedthat the Registrar-Treasurer be empowered to secure the services of a boy for this purpose during future college sessions.

It is imperative that the floor of the chemical laboratory should have asphaltum, sheet lead, or some other suitable covering placed over it at once, to prevent the constant unavoidable dripping of water, acids, etc., upon the students, their work tables, apparatus, etc., in the pharmacal laboratory, which has been a source of constant annoyance ever since the

seams of the floor have opened, owing to the shrinkage of the wood.

It is also requested that each laboratory be provided with a wall clock.

The staff respectfully suggest that the next session shall begin on September 12th; the junior term to continue until December 18th, fourteen consecutive weeks; the senior term to extend from January 3rd, 1896, to May 3rd—seventeen and a half consecutive weeks.

Respectfully submitted,

CHAS. F. HEEBNER,
Dean.

Toronto, February 5th, 1895.

Appended as exhibits to the Dean's report were copies of the examination papers, and lists of candidates passing. These have already been published.

Messrs. Daniel and Waters moved that the report be received. Carried.

Messrs. Daniel and Waters moved that the report be adopted.

Moved, in amendment, by Messrs. Clark and Hargreaves, that the council go into committee of the whole to consider the report.

This was carried, and Mr. Shuff took the chair.

Clause 1 was adopted.

Clause 2 was referred to the Executive and Finance Committee.

Clauses 3 to 7 inclusive were adopted.

Clause 8 was referred back.

The balance of the report was approved, and, on being reported back to the council, the report as amended was adopted.

The council then adjourned until ten o'clock, Friday morning.

FOURTH DAY.

On reassembling on Friday morning, the vice-president again in the chair, a communication was read from the students, petitioning for permission to hold an "At Home" in the college building, and this was granted.

Moved by J. M. Hargreaves, seconded by J. A. Clark: That owing to the absence of the president, who is in Australia, the vice president be authorized to sign diplomas granted to graduates by this council February 7, 1895, and also fulfil all other duties of the president until his return. Carried.

A communication having been received in reference to the case of Dr. W. A. Ross, of Barrie, who had applied for registration, it was resolved, upon motion of Henry Watters, seconded by John McKee: That the matter of Dr. W. A. Ross, Barrie, be referred to the college solicitors to ascertain if this college is obliged to register him as a chemist and druggist, and should their opinion be that the college is not obliged to register him that his registration fee be returned and his name removed from the register; also the name of the apprentice registered under him.

Report No. 2 of the Executive and Finance Committee was as follows:

GENTLEMEN,—Your committee deem that the following will be sufficient appropriations for the various departments for the present term, and that the question can be fully considered after the taking of stock of apparatus and chemicals at the end of the senior course, and will be dealt with by the council in August, which will be in sufficient time for procuring any appliances required next term:

Department of botany and chemistry	$125 00
Department of practical and analytical chemistry	75 00
Department of materia medica and microscopy	100 00
Department of pharmacy	132 00

Your committee would recommend that estimates be procured as to the cost of covering the floor of the upper laboratory, and submitted to the council at the August meeting.

Clause No. 4 of the Report of the Committee on Education referred to us, relating to renewal of contracts of the professors of the college, your committee recommend that the President and Registrar-Treasurer be authorized by this council to sign a renewal of the contract with each of the professors for a further term of two years from the expiration of the present contract, and upon the terms and conditions of the present contracts.

Your committee recommend that at the request of the Board of Examiners *re* purchase of dispensing scales be left over until the August meeting.

Respectfully submitted,

D. H. MACLAREN,
Chairman *pro tem.*

Mr. Daniel then presented Report No. 2 of the Committee on Education, which was as follows:

Clause 8 of Report No. 1 of the Committee on Education was sent back to your committee, and it is recommended that the following be substituted: All apprentices desirous of writing at the qualifying examination in May or December may do so if the term of their apprenticeship terminates by the time of the meeting of the council in the following August or February of each year, provided always that satisfactory evidence is presented to the council that the term of apprenticeship is completed between the qualifying examination and the next meeting of the council. Students are requested particularly to note that they are required to attend the senior course, and that no part of the time spent at the senior course is allowed to count in the term of apprenticeship, and that all former regulations concerning this matter be hereby rescinded.

With reference to the application of Hanley G. Chant, your committee recommend that he be permitted to write at the qualifying examination in December next. Your committee recommend that the following students at present attending the senior course be permitted to write at the qualifying examination to be held in May next, viz., A. Cundle, J. R. Y. Broughton, Mr. Bauld, and O. A. McNichol. With reference to the communication from Mr. E. B. Shuttleworth *re* some books belonging to Rev. Dr. Avison, of Seoul, Corea, your committee, in view of the fact that the books have not been in use for some time, and that it is not deemed desirable at present to expend any further sum on library account, recommend that they be returned as requested. Attached to and forming part of this report is the report of the Dean, which speaks for itself. The work of the session has been thoroughly rehearsed, and the report contains much useful and very interesting information. The exercises in Pharmaceutical Arithmetic are highly commended. The reference therein to a two years' course and higher matriculation your committee strongly approves, but owing to extreme difficulty in procuring the necessary legislation the question cannot be dealt with at present. Your committee recommend that announcements to the number of 1,800 be published, and sent out in the usual manner.

Respectfully submitted,

C. D. DANIEL,
Chairman.

Upon the motion of Messrs. Daniel and McKee the report was received, and the council went into committee of the whole thereon.

Mr. Clark objected to the adoption of the first clause of this report, on the ground that it was an amendment to the by-laws which required a six months' notice of motion. This view of the matter was sustained by the board, and Mr. Daniel was permitted to withdraw the clause and give notice of motion for its adoption at the next meeting of the council.

The report as thus amended was reported back to council and adopted.

BY-LAWS.

Report of the By-laws and Legislation Committee.

Your Committee on By-laws and Legislation beg leave to submit the following report:

1. That John Lavelle be not apprenticed in connection with the Durham Pharmacy, and that the Registrar return him the one dollar, together with his papers.

2. That the request of Mr. Fred Fox be not granted, and that his apprenticeship date twenty-seven months prior to December 1, 1894.

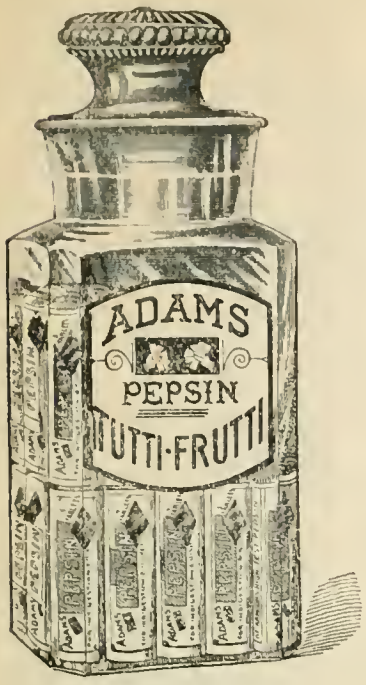
3. That the request of Charles W. F. Howard, of Hagersville, be granted.

4. Regarding the application of Daniel J. McBride, of Orangeville, we would recommend that his apprenticeship date from December 1, 1889.

5. We would recommend, on payment by W. J. Atkins of his fee for 1894, that John A. Robertson's registration date from August 14, 1893.

6. We would recommend that the request of C. O. B. Tweedale be granted.

7. That the request of W. A. Coleman be granted on receipt of an affidavit from Cairncross & Lawrence to the Registrar of the college, to the effect that said W. A. Coleman commenced his apprenticeship with them on July 11th, 1894.



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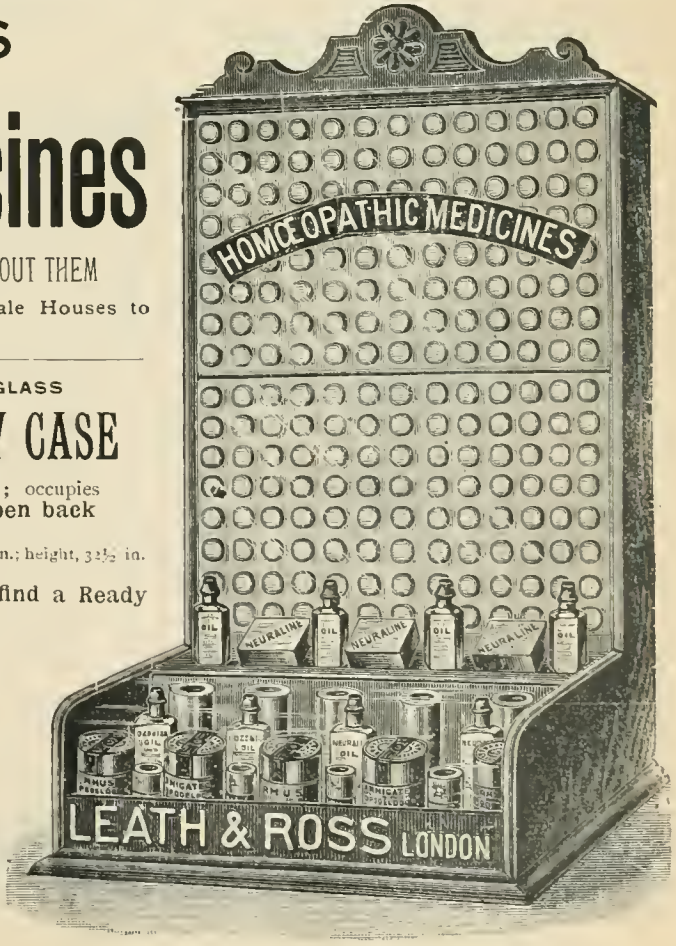

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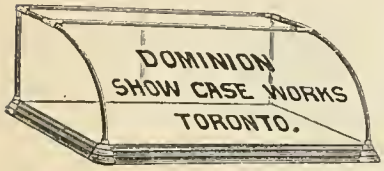

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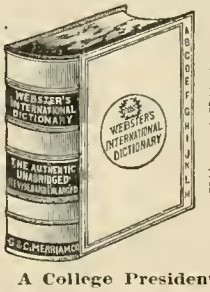

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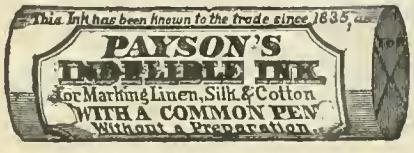
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INDELIBLE INK
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WITH A COMMON PEN
Without a Preparation

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Piso's Remedy for Catarrh is the Best, Easiest to Use, and Cheapest.

CATARRH

Sold by druggists or sent by mail.
50c. E. T. Hazeltine, Warren, Pa.

8. That the request of G. W. Henderson be granted.

9. That Clark H. W. Newton's registration date from November 19th, 1894. The council have no power to register apprentices prior to the date of certificate of qualification.

10. That when Mr. H. F. Gordon pays his fees and forwards an affidavit confirming date of apprenticeship agreement that the request of James Dawson be granted.

11. We would recommend that on payment of the sum of $4 by Dr. McLaughlin for the year 1892, when he was a partner with Dr. W. J. Anderson, that Frank McKechnie be registered from February 10th, 1892, that being the date of his qualification papers.

12. That the application of J. L. McPhee be granted, registration to date from May 1st, 1894, on receipt by the Registrar of an affidavit from W. McDonald to the effect that J. L. McPhee was apprenticed with him on April 28th, 1894, the dates apparently having been erased on the apprenticeship papers.

13. That George J. Mitchell be registered from date of educational qualifications, September 6th, 1894. Your committee regret that druggists should take as apprentices young men without the necessary education to qualify.

14. That Elmer J. Bellman be allowed to register from November 24th, 1893, that being date of certificate of qualification.

15. That Herbert N. Ray be allowed to register from March 12th, 1888, that being date of the certificate of qualification.

16. Regarding the letter of B. F. Casswell, the committee would authorize the Registrar to reply that such a position would be contrary to the spirit and intention of the Act.

17. That the application of James Brown be granted.

18. That the application of C. J. Wynn be granted.

19. That H. G. G Craig's application for registration be granted by Dr. J. W. Shillington paying his fees for 1892, and proof that he has been with a qualified druggist since.

20. That the application of J. J. Speight be granted.

21. We find that William Granville does not produce the necessary educational qualifications to register under the Pharmacy Act.

22. That the Registrar forward to R. Currie and G. White the qualification blank forms required by this college.

23. That the application of Mr. G. H. Cameron cannot be granted, and that the letter of J. K. Strachan, Registrar of the Pharmaceutical Association of the Province of Manitoba, be referred back to the council for consideration and action.

24. That Chas. McDonald, of Renfrew, be granted his diploma upon passing his examination as required by the Pharmacy law of Ontario, he having completed his term of apprenticeship in full according to the Pharmacy Act in force in 1885.

25. Regarding the letter of H. F. McCarthy, of Ottawa, *re* apprentice, we would recommend that the Registrar forward to Mr. McCarthy a blank form of educational qualification which the apprentice might pass at once, if capable, and instruct him that we have no power to register an apprentice until we are in possession of said qualification.

26. Regarding the application of W. E. Bauer, we would recommend that he be allowed the time served in Ontario under a duly registered chemist, viz., from the 16th July, 1888, to September 8th, 1890.

27. That the council has no power to grant the request of Raymond Fisher.

28. Regarding the application of W. Applebee, we would recommend that his request be granted on furnishing to the Registrar of the college the necessary affidavit of C. R. Sneath.

29. That the application of John B. Sawdon be granted on his sending to the Registrar proof of his necessary educational qualifications at that date.

30. That the application of J. T. Curts be granted on forwarding to the Registrar an affidavit of firm from his employers.

31. That the application of J. H. Bennett be not granted.

32. That George J. Hunt be allowed to go up for examination, providing he can produce evidence to the Registrar showing that his full time of apprenticeship has been served with a duly qualified pharmaceutical chemist.

33. That the application of Morley Prust be granted.

34. Regarding the request of John A. Traynor, of Lanark, the evidence presented is so conflicting and unsatisfactory that your committee cannot grant it.

35. Regarding the application of Clayton Copeland, we would recommend that his registration date from time of his educational qualifications.

36. Your committee have had before them the application of Mr. J. R. Watson to be allowed the term of fifteen months, which he alleges he served under articles of apprenticeship with Mr. A. B. Petrie, of Guelph, as well as the affidavits of George Williams, grocer; Thos. M. Till, deputy collector of revenue; Alex. Stewart, druggist; W. O. Stewart, physician: and W. J. Graham, decorator, in support of same. We beg to report that we do not feel justified in entertaining the same.

37. Regarding the request of J. W. Campbell, of Kingston, your committee recommend that it be granted.

All of which is respectfully submitted.

C. K. McGregor (Chairman).
W. A. Karn.
J. M. Hargreaves.
J. G. Shuff.

Mr. McGregor moved the adoption of the report, but an amendment to go into committee of the whole for its consideration was carried, and the report was taken up clause by clause. The only clause which created any discussion was the last but one, and, after debating it at some length, it was moved in amendment by Messrs. Watters and Mackenzie that the clause be struck out and the following substituted: "That the application of J. R. Watson be granted." This was carried, and the report, as amended, was adopted.

Moved by C. D. Daniel, seconded by C. K. McGregor, and resolved: That in view of the fact that a satisfactory letter has been received from the secretary of the Pharmaceutical Society of the Province of Manitoba with reference to the recognition of our graduates that we agree to accept gradnates from Manitoba college, provided they have complied with the regulations of a standard equal to our own.

Moved by Henry Watters, seconded by C. K. McGregor, and resolved: That the vice-president be requested to watch proceedings in the Ontario Legislature, and in the event of any bill or bills going before the House affecting druggists that he be empowered to call a meeting of council, should he deem such necessary.

Moved by C. D. Daniel, seconded by J. M. Hargreaves, and resolved: That $3,000 additional insurance be placed upon the contents of our college building.

Moved by Henry Watters, seconded by John McKee, and resolved, That the council do now adjourn to meet in August, or at the call of the president.

Formula Wanted.

R.R.S. asks for a formula for a toothache gum, also mode of manufacture.

To Meet Cutting in Prices.

The cutter in patent medicines is springing up in various towns, and, while it may be made a little difficult for small dealers to get stocks at first, it is impossible to prevent it in the long run, and it is somewhat hard, such being the case, to ask drug jobbers to go outside of their usual methods in reference to selling direct:

It prevents the handling of these goods in other channels, and cannot in any way prevent cutters from procuring them. The cutter has come to stay, this has been clearly proven both in this and other countries, and you cannot prevent a man with money from getting what he wants. We are not in sympathy in any way with any one demoralizing prices, and would do anything to assist maintaining prices of patent medicines, but "facts are stubborn things," and if wholesale grocers carry stocks of patent medicines it will only tend to increase the trouble. There is no doubt from past experience that at the first sign of a cutter starting the only way to meet him is by the retail druggist putting down prices so that no capital can be made out of it, and when these men find they are doing business for nothing it will die out much quicker than by opposition of any other kind.

Little Things.

Little things are the secrets of success in business, in science, in art, in morals, in knowledge—in every pursuit in life. Careful attention to little things brings to a successful performance of big things. In the universe there are no trifles. As Angelo said: "Trifles make perfection, and perfection is no trifle." Most of the great discoveries of the world have resulted from attention to little things. Study the history of bankruptcies and failures in business and in life, and you find them largely men who had no talent for looking after details. Moments are the golden sands of time. An hour every day withdrawn from frivolous pursuits would make an ignorant man a well informed man in ten years.

The happiness of life is made up of little things, little courtesies, little kindnesses, little deeds, pleasant words, genial smiles, a friendly letter and good wishes. It is so in character.—*Exchange.*

Medical Practitioners in Austria.

Statistics recently published by the Superior Sanitary Council of Austria show that in the various kingdoms and countries represented in Reichsrath there were, at the end of 1893, 8,149 medical practitioners. Of these, 6,728 were doctors of medicine, and 1,421 were grade practitioners.

Let Us Reason Together.

When goods don't turn out exactly as ordered, don't forget the Golden Rule—treat the shipper as you would wish him to treat you. Consider that he is anxious to fill your order right—that he wants to give you just what you ordered, and that he has used all possible diligence to have this done, but that mistakes are liable to occur. The wrong brand may have been shipped; a case may have been shipped instead of a dozen; you may have ordered a box, thinking of one size, and he may have sent you what he considers two half boxes to fill the order. Many things may happen, and if you suspect the shipper of evil intentions and a desire to get the best of you, instead of giving him credit for having done the best he could, you will not act genteelly. You will ship back without notice. You will put him to perhaps unnecessary expense; the goods may be perishable, and by the time they get back be utterly worthless. Therefore, do what is *right and fair.* Take the goods, care for them, write the shipper at once fully what is wrong. Don't wait for a salesman, that may be several days. Write at once, and explain clearly. Don't simply say to him, "The goods are not as ordered, and are here subject to your order." How can he tell what is not as ordered? Explain, then he can understand and write you intelligently. If the goods are perishable, assort them at once and save the good; and if there should be a small part in bad condition, don't say the whole lot is spoiled. Be fair. This you are entitled to be as a man, and as a merchant.—*Mercantile Journal.*

A Manual of Organic Materia Medica and Pharmacognosy. An introduction to the study of the vegetable kingdom and the vegetable and animal drugs, etc., etc. By Lucius E. Sayre, Dean of the School of Pharmacy, Professor of Materia Medica and Pharmacy in the University of Kansas, member of the Committee of Revision of the United States Pharmacopœia. Philadelphia: P. Blakiston, Son & Co. A volume of 550 pages with over 500 illustrations, the majority of which latter are from original drawings. An extended review of this work will appear in our next issue.

Kola is both a necessity and a luxury to the inhabitants of a large portion of Equatorial Africa, where the fresh seed is employed as a masticatory with a view to overcome fatigue, hunger, and thirst. The main reason why it has not obtained the position it deserves in this country as a tonic stimulant is that it has usually heretofore been imported in a dried condition. F. Stearns & Co., of Detroit, Mich., are the first to prepare a preparation made from the fresh (undried) Kola nuts, and offer "Kolavin," a delicious tonic wine and powerful cerebro-spinal stimulant. This retains undiminished the same peculiar properties possessed by the fresh Kola nuts, and physicians desiring to test this new product can easily obtain samples for clinical experiments by making application for same.

Soda Water Apparatus.—We would call the attention of our subscribers to a new style of soda water apparatus, designed and manufactured by the Fletcher Manufacturing Company of this city, whose advertisement appears on another page. This fountain has been especially designed for druggists' use, offering many advantages over the old style marble fount, not the least of which is the small cost compared with the marble fountain. The pneumatic patent syrup jar has many points to recommend it. Among others we may mention its great superiority for rapid serving, and for keeping the syrups cool. The jars are made from pure block tin, silver-plated inside and out. The jars are sunk through the marble into the cooling box, which fits directly under the counter, where main coolers for fountain are placed. Thus the soda water and syrups are kept cool by same ice. The Frigid Fount (new this season) has, besides the main coolers, a series of coil coolers placed inside the body of the fount. The body of fount is filled with ice, which must of necessity ensure cool soda water. We understand that Messrs. Hooper & Co., of King street west, in this city, have ordered one of these fountains. We predict a large sale for this apparatus, which is bound to become popular, and must congratulate the manufacturers on producing an article which is a credit to Canadian manufacturers.

Amylocarbol.—A mixture composed of 9 parts of carbolic acid, 150 parts of soap, 160 parts of amylic alcohol, and water enough to make 1,000 parts, is designated amylocarbol.

Chloral-caffeine is a soluble compound of chloral and caffeine (*Phar. Centralb.*), obtained by uniting in an alcoholic or aqueous solution by process claimed to be patented.

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Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc, will be inserted once free of charge. *Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.*

BUSINESS WANTED.

DRUG BUSINESS WANTED. MANITOBA OR British Columbia preferred. Can pay spot cash. All communications confidential. Give full particulars. Address Box 205, Omemee, Ont.

BUSINESS FOR SALE.

DRUG BUSINESS FOR SALE IN A THRIVING town, N.W.T. Stock consists of drugs and stationary, amounting to $1,800. For information write to the Canadian Druggist.

FIRST-CLASS DRUG BUSINESS FOR SALE, east of Toronto. Stock about $6,000. Good reasons for selling. Apply to R., care of Canadian Druggist.

LONG-ESTABLISHED, PROFITABLE, AND successful proprietary articles for sale. An excellent opportunity for a live man to secure good business, capable of great extension at very low figure. Apply to Box 20, office of Canadian Druggist.

SITUATIONS WANTED.

SITUATION BY DRUG CLERK, 4½ YEARS' EXperience; can furnish good references. Am ready to fill position by the 15th inst. Address, D. W. H., care of this journal.

SITUATION WANTED BY DRUG CLERK, with about four years' experience; can furnish references from present employer; good dispenser. Address, H. S. Pannell, 248 Alfred Street, Kingston.

SITUATION WANTED AS MANAGER OR ASsistant, by graduate of O.C.P. and Phm.B. Five years' experience, city and town. Good references. Moderate salary. Address, "Pharmacist," Angus, Ont.

WANTED POSITION IN DRUG STORE BY A young man with four years' experience. Best of references; strictly temperate. Address, W. O. Helan, Walkerton, Ont.

SITUATION WANTED AS DRUG CLERK; three and a half years' experience; attended one term at Ontario College of Pharmacy; good references from present employer. Address, B. M. Copeland, 136 Catharine St., Hamilton.

Geo. H. Chandlee. H. C Chandlee.

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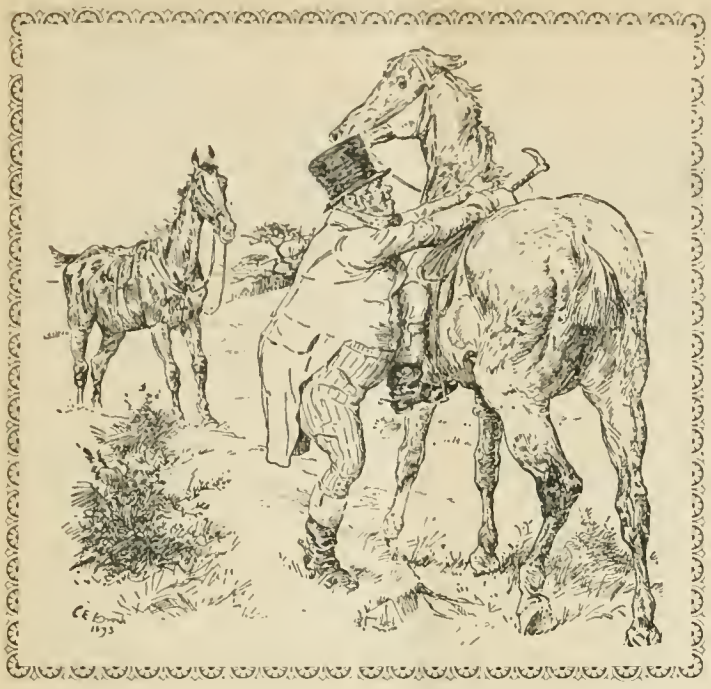

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You will come back again to the genuine

MENTHOL COUGH DROPS

Like every other successful article they have been imitated, but the imitation only helps to show what the genuine really is.

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7 FRONT ST. EAST, TORONTO

ONE OF THE BEST SOOTHING AGENTS OR DEMULCENTS KNOWN

Pure Unadulterated Liquorice

FOR

Coughs, Colds, Etc.

The **SOLAZZI BRAND** is certified by Analysis to be an **Absolutely Pure Extract,** without any admixture.

"HEALTH" says:

"By Far the Best and Purest."

"THE CHEMIST AND DRUGGIST" says:

"The Most Esteemed of All."

"SOLAZZI."

This is the purest **LIQUORICE JUICE** obtainable; it is a guaranteed specific—in fact

NATURE'S OWN REMEDY

for Winter Coughs, Colds, and all Chest Affections.

Chemists should stock and push this article, as a safe and effective remedy, provided by kindly nature, in preference to Patent Medicines, which, in these days, yield only the barest profit. To be had, with Show Cards and Handbills, of

ALL WHOLESALE HOUSES.

To be Obtained of all Wholesale Houses

Fortier's Lafayette

THE FINEST 5ct. Cigar

EVER OFFERED TO THE PUBLIC.

JUST TRY IT.

RIPANS

One Gives Relief.

IF YOU USE THE

Red Star Toothwash Bottle

You will beat your neighbor, as no other approaches it for beauty.

Scant 2 oz. (looks like a 3 oz.) complete open crown sprinkler at $7.83 net per gross. Sample sent on receipt of 5 cents to pay postage.

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The original French Cocoa Wine; most popularly used tonic-stimulant in *Hospitals, Public and Religious Institutions* everywhere.

Nourishes, Fortifies, Refreshes

Strengthens the entire system; most Agreeable, Effective and Lasting Renovator of the Vital Forces.

Every test, strictly on its own merits, proves exceptional reputation.

Palatable as Choicest Old Wines

LAWRENCE A. WILSON & CO., Sole Agents, MONTREAL

Effect of the French Treaty

CLARETS AT HALF PRICE

The Bordeaux Claret Company, established at Montreal in view of the French treaty, are now offering the Canadian connoisseur beautiful wines at $3.00 and $4.00 per case of 12 large quart bottles. These are equal to any $6.00 and $8.00 wines sold on their label. Every swell hotel and club are now handling them, and they are recommended by the best physicians as being perfectly pure and highly adapted for invalids' use. Address: BORDEAUX CLARET COMPANY, 30 Hospital Street, Montreal.

W. J. DYAS

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Chemicals, Druggists' Specialties, Proprietary Medicines

WAREROOMS and LABORATORY: Strathroy, Canada

THE ONLY GENUINE.

The Detroit Pennyroyal Wafers

Have been so successful with Women in the treatment of

PAINFUL AND IRREGULAR MENSTRUATION

That Physicians prescribe them liberally.

The Druggist can safely recommend them for their value to the sick.

At $8.00 per dozen delivered, you get a good profit of 50 per cent. No need to try to work off an imitation of them.

If you want local advertising, or terms, or special remedies, write to the manufacturers.

EUREKA CHEMICAL CO.,

Canadian Laboratory WINDSOR, ONT.

DETROIT, MICH.

A Warning Cork for a Poison Bottle.

R. Watson Councell (*Monthly Magazine of Pharmacy*), proposes that the cork for a poison bottle be cut in two, horizontally, near the small end, and the entire cork threaded on a string, with a knot below the lower segment of the cork. The free end of the string is to be attached to an additional label bearing the word poison. The cork being fitted to the bottle containing poison there are several things which attract attention, even in the dark. First, the string; second, the label (bearing the word poison); if these are not noticed, then if the cork is seized and pulled, only the upper segment comes away, sliding on the string, and the contents of the bottle cannot be poured out. It is necessary to pull on the string itself in order to remove the cork entire. This appliance can be made by any one, costs nothing, and suits any bottle. On the bottle itself the poison label should always be stuck above the directions, so as to be seen first, as, when the poison label is placed at the bottom of the bottle it is often covered by the hand grasping the bottle and is not seen.

Tablet Triturates.

By C. S. Hallberg.

None of the various novelties in pharmacal science has leaped into favor as quickly as have the tablet triturates. Although brought into notice by Dr. Fuller, of New York, some ten years ago, it is only during the past three years that they have been exploited by manufacturers. The success that they have met with is tremendous, and if their employment should continue in the same ratio it will seriously threaten dispensing pharmacy. Of the various forms in which medicines have been presented, from the elixir to the coated and compressed pills and lozenges, the tablet triturate is by far the most insidious. There is no fear, however, that the triturates have come to stay, but, on the other hand, a probability that they will disappear as quickly as they came. They owe their popularity to the fact that dry medication is favored by many physicians; to the claims set forth as to their ready solubility; and, above all, to the fact that the triturates have enabled the physicians to supply small doses in an elegant and convenient form at a very small cost to his patients, thus affording him an advantage homœopathists have so long enjoyed.

These apparent advantages will not stand the searchlight of investigation. Dry medication, except for specific purposes or local effect, or in the case of a few exceptional remedies, is the most unsatisfactory method of administration of medicine.

Therapeutic effect is largely a question of solubility in the system. As a general rule the more dilute the drug the quicker and more certain the effect The effect is quicker for the same quantity of drug from an infusion than from a tincture; and in the same ratio more prompt is the effect from a tincture than a fluid extract, just as the effect is greater from a fluid extract than from an extract, and from an extract than from a resin such as podophyllin.

But this is not the only advantage that liquid medicants have over dry or powdered forms. Many substances do not act when taken internally because reaction of the fluids of the body is not favorable to their solution and consequent absorption. Thus oxides, carbonates, alkalies, etc., are not active if the fluids be alkaline, while the effects of other substances, such as chloroform, are impaired through the effect of an acid condition of the fluids. The liquid form of medicine permits addition of acids and alkalies to correct the respective conditions and to insure the prompt effect of the remedy. Addition of acids to tonic bitters is a familiar practice. In this way an effect far more prompt is obtained than in neutral media.

The so-called idiosyncrasies, toward or untoward effects, of many drugs are probably due to the fact that they are not properly dissolved or absorbed by the system, and aside from the reaction of the liquids, may also be due to the inactivity of excretory organs, such as the kidneys. The cumulative effects of drugs, as in the case of strychnine, are undoubtedly due to the comparative insolubility of the alkaloid or its salts in the alkaline fluids; when the reaction changes to acid, then the strychnine which may have accumulated in the system is quickly dissolved, with not infrequently the most dangerous consequences. As an illustration in one instance, a person for whom strychnine tablet triturates (1.50 grain) had been prescribed, obtained a bottle of 500 and afterwards a second bottle, of which he complained after due use that it had no effect. These triturates in all probability contained strychnine; hence it is likely that it remained insoluble in the system.

Another reason why organic drugs are not adapted to dry medication, especially in tablet triturate form, is that these latter are made from alkaloids, and not from preparations of the drug. If the prompt certain effects of a drug be required, in solution, is of much greater importance that when the full effect is desired the drug (in most instances) be used and not an alkaloid nor other active principle. Notwithstanding claims made, for commercial reasons, the opinion that alkaloidal drugs are valuable only because of the amount of alkaloids they may be shown to contain, has not been sufficiently demonstrated to be incorporated in the United States Pharmacopœia of 1890 to any greater extent than in the United States Pharmacopœia of 1880, except as to one drug, nux vomica. The dose of extract of nux vomica is given by a standard authority (National Dispensatory) at one-half grain, "which may be gradually increased to gram 0.1 or 0.2, when the specific effect of the drug is sought."

Based upon these doses of the extract the equivalent quantities of the other preparations are presented (in tabular form), and also the amount of alkaloids and strychnine in each.

COMPARATIVE DOSES OF NUX VOMICA PREPARATIONS.

Extract	Fluid Extract	Tincture		Alkaloids		Strychnine.	
gm.	c. c.	c. c.	min.	mg.	gr.	mg.	gr.
0.03	0.3	1.5	25	4.5	1-15	2.25	1-30
0.06	0.6	3.0	50	9.0	1/8	4.50	1-15
0.10	1.0	5.0	80	18.0	1/4	9.00	1/8
0.20	2.0	10.0	160	27.0	3/8	13.50	3-16

Extract	Min.
	5
	10
	16
	32

This table demonstrates that the weakest preparation (the tincture) is relatively the strongest compared with the drug strength of the fluid extract, the extract, or the alkaloids. That the full effect of nux vomica is represented by the alkaloids is no more true than that the effects of opium are represented by morphine, or that cinchona is completely represented by the alkaloids. Medical men should begin to realize more generally these conclusions:

(1) That when full, prompt effects of any drug is desired it must be prescribed in the form of a tincture made from the crude drug of the best quality, and not from the fluid extract. (2) That alkaloids cannot replace their respective drugs any more than synthetic products have displaced the alkaloids. (3) That by using tablet triturates they are simply poularizing the form of self-medication, the triturates now being put up and numbered according to the disorder for which they are recommended. (4) That old-time patent medicine, herb women, and Indian and Chinese travelling fakirs are preferred by many persons to modern physicians because the former give them "good, old reliable medicines," that "work promptly and effectively," instead of dimethylphenyl-isopyrazolon, acetphenetidin, and the hosts that have come and gone.

The quicker physicians appreciate that the materia medica and pharmacy of their

fathers is their best friend the better for the best interests of the medical profession.—*Retail Druggist.*

The Passing of the Tablet Fad.

Unquestionably one of the greatest evils from which legitimate pharmacy and medicine suffer is the indiscriminate use of compressed tablets. Beginning, in a small way, they have gradually increased in use until now they threaten to overthrow all other form of preparations. Their convenience, portability, and cheapness are elements that appeal to many, and in the case of inorganic chemicals and well-defined organic compounds, like strychnine, morphine, atropine, etc., they afford, in many cases, a valuable means of drug-administration, but the danger to legitimate pharmacy and medicine lies not in the use of the tablet, but in its abuse ; and it is upon this matter that we wish to speak.

In the evolution of drug administration different forms of preparations have successively arisen. Crude drugs have been followed by infusions, and these by tinctures, extracts, fluid extracts, and active principles. None of these, however, has wholly replaced the others. Each class has shown especial value, and met special indications in disease treatment. Hence, as a result, medicine has had her implements of treatment largely increased, and pharmacy has broadened in work.

But in the use of tablets a different result is sought. The tablet faddists claim that all medicinal preparations should be given in the form of tablets, and, like all extremists, they are wrong. After the fad is over, it will be found that tablets afford a valuable means of drug administration in certain cases, and may be used at times with advantage. That they will permanently replace all the older forms of preparation, we do not believe possible, especially in the case of preparations of drugs of organic origin, for the reason that tablets cannot be made to contain the same proximate principles, in the same soluble form, and in the same proportion, as found in various galenical preparations. Even if it were possible to do this, the tablet does not afford the readiness of assimilation and resulting promptness in action given by other forms of preparations, notably the liquid ones.

Now, when physicians learn that they cannot get as good therapeutical results with tablets as with other forms of medicaments, they will use tablets for special cases only—after the present fad subsides, for like all other men, including the pharmacist, the modern physician must have his fad.

The abuse of the tablet lies in the endeavor made to have it replace all other forms of drug preparations. Notably is this so in the case of tablets alleged to represent tinctures and fluid extracts. Granting that the liquid preparations be rightly made, we believe that the heat used in concentrating and drying them with the diluent to make the powder for the tablet must result in an alteration of the proximate principles of the drug, both in proportion and kind.

Heat is a most important factor in altering the character and amount of active principles in a drug preparation. Take, for example, digitalis infusion. M. Roger has shown (*Amer. Jour. Pharm.*, 1889, 174) that the toxicity of digitalis infusion is very notably diminished when the product of maceration is simply concentrated on a water bath ; from 90 to 150 times the amount of the heated product being required to cause death, as compared with the cold water product. What is true of infusion of digitalis when heated is very probably true of other drug preparations.

How the commercial tablets alleged to represent galenical preparations are made is known only in a general way ; each manufacturer following his own working details. We have been informed, however, on good authority, of a practice pursued by one manufacturer in the making of tablets of the so-called narcotic tinctures (*i.e.*, aconite, belladonna, digitalis, etc.), which, if true, is open to the severest censure. This manufacturer, finding that his tablets of these tinctures stuck together on keeping in stock, adopted a new procedure. Instead of making the tablets contain the tincture in minims, as represented, he makes a fluid extract of the drug, evaporates to a thick consistency, washes with petroleum benzin to remove resin, coloring matter, and benzin soluble extractive, spreads on plates, dries with heat, and makes up into tablets.

Now, apart from the question as to whether this benzin treatment removes or alters any active principles or not, the fact remains that such tablets are not what they are represented to be. Instead of being made of tinctures, as claimed, they are made of fluid extracts, concentrated by heat, washed with a solvent that removes certain proximate principles, and then heated to eliminate the persistently remaining traces of benzin, which heat probably modifies, if it does not destroy, the remaining proximate constituents. The most enthusiastic tablet faddist can hardly claim that tablets made in this way are fit to replace properly-made tinctures.

Whether this practice is followed by other manufacturers or not we do not know, but we believe that the surest way for physicians to get the best therapeutical results with drugs of organic origin is to use properly-made tinctures and other galenical preparations made by pharmacists. These preparations may vary somewhat, from natural causes, in their proportion of active principles, but they vary no more than the varying personalities of sick patients, and as they are usually given until physiological effects are had the danger in the use of non-standardized preparations of potent drugs is more apparent than real, and has been greatly exaggerated.

We believe that tablets have had their day, or rather have reached their zenith of popularity, and like every form of drug preparation that has preceded them will pass away, in part at least, to make room for something else ; and when this takes place physicians will then be found to cry to the newcomer, as they do now with the older galenical preparations and the compressed tablet : "*Le roi est mort. Vive le roi!*" It should be the aim of physicians and pharmacists everywhere to work together to discourage the abuse of the tablet form of drug administration. —*Alumni Report in Journal of Pharmacy.*

Origin of the Term Anæsthetic.

Edgar Willet, in a communication to the *British Medical Journal*, records a conversation he had with Oliver Wendell Holmes, when the latter was in England in 1886. The discussion had turned on the subject of anæsthetics, when he said : "Do you know the origin of the term?" On receiving a negative answer he replied, "Then I will tell you. I believe it was I who invented it, and this is how it occurred. Many years ago, when ether and chloroform were only just coming into use, Morton, the dentist at Boston, who was largely responsible for the introduction of ether, came to me and asked me if I could suggest for him a word which could be used for both drugs, and also a word which would describe the effect produced by their inhalation. After trying two or three words, æsthetic occurred to me as meaning sensitive, and in consequence anæsthetic as being insensitive easily followed, with anæsthesia for the condition produced. That," he concluded, "was, I believe, the origin of the term."

Doctor-Ridden.

History is full of proofs of the degradation of the calibre of nations which become subject to the tyranny of a priesthood. We in this country have a fair experience of the effect of the predominance of lawyers in our legislature, and in our public affairs generally, though, perhaps, from this calamity we get off with no worse result than a depletion of our purses. We have not yet had the spectacle of a doctor-ridden nation, though we owe no thanks to the doctors themselves for this exemption. They have done their utmost to establish a reign of terror over us, and to dictate laws which, if carried, would place us all in their power, and we are not sure that they are not increasing their influence to an almost dangerous degree, through their parliamentary committees, associations, and journals. There is, however, we are glad to believe, a healthy prejudice against the assumptions which at present provide an atmosphere of suspicion around their proposals, which will always, we hope, preserve us from absolute submission to their pretensions.—*Chemist and Druggist.*

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Formulary.

BOROSALICYLAT.

This is the name given to a compound made by bringing together two molecules (676 parts) of sodium salicylate and four molecules (124 parts) of boric acid. They are rubbed together, and the damp mass then dried. It is an antiseptic, and in the following combination is an excellent application for chilblains :

Borosalicylat	ʒv.
Arnica glycerine	ʒj.
Lanoline or lard	ʒivss.
Vaseline	ʒvss.

Mix.

The arnica glycerine is made by macerating 1 oz. of arnica flowers in 9 oz. (by weight) of glycerine for eight days.—*Chemist and Druggist.*

EMOLLIENT CREAM FOR CHAPPED HANDS

Quince seed	ʒiss.
Boric acid	℈j.
Glycerine	ʒij.
S.V.R.	ʒiij.
Carbolic acid	gr. x.
Eau de Cologne	ʒij.
Oil of lavender	♏xx.
Glycerite of starch	ʒij.
Water to	ʒxvj.

Dissolve the boric acid in 8 ozs. of water, macerate the quince seed in the solution for three hours, strain, add the glycerine, carbolic acid, and glycerite, and mix well. Mix the S.V.R., eau de Cologne, and lavender oil, add the mixture to the mucilage, and mix the whole thoroughly.—*Chemist and Druggist.*

CEMENT FOR PORCELAIN LETTERS.

Solution sodium silicate	30.0
Slaked lime	45.0

Mix and add.

Litharge	30.0
Glycerin	enough.

Make a paste and use immediately.

PASTE FOR BOTTLE LABELS.

Zweiffler (*Suddeutsche Apotheker Zeitung*), after many experiments, prefers a paste of dextrin, to which thymol, in the percentage of 1 part to 2000, has been added. He maintains that the thymol, while not interfering in the slightest with the great adhesive properties of dextrin, makes it proof against the action of moisture, which has hitherto been the great objection to it.—*National Druggist.*

TAN AND FRECKLES.

R. Potassii carbonatis ʒiij.
Sodii chloridi, ʒij.
Aq. aurantii flor., ʒij.
Aq. rosæ, ʒviij.
M. Ft. lotio. Sig. Face-wash — *Bartholow Ex.*

A UNIVERSAL POLISH.—That is what the *Corps gras industrielles* calls the following, which it claims acts equally well upon unvarnished, or unpolished, wood and old (varnished or polished) furniture : Dissolve in 1,000 parts of alcohol of 94, 15 parts lavender oil, 50 parts gum copal, 365 parts shellac, 45 parts gum acroid (black-boy gum, New Holland resin), 30 parts gum elemi, and 30 parts benzoin. The solution is nearly colorless. It is used as other polished and lacs are.

DEPILATORY SOAP.

Glycerine	453
Tallow	907
Cocoanut oil	907
Castor oil	1844
Soda lye, 33 p.c.	1814
Starch	113
Sodium sulphate	907

Corps Gras Industr.

DEPILATORY PIGMENT.

Iodine	gr. 24
Oil turpentine	m. 40
Castor oil	fl.dr. 1
Alcohol	" 5
Collodion	enough to make fl. oz. 2

Directions : Apply daily for three days
—*Practitioner.*

CEMENTS TO FIX METALS TO GLASS.—(1) Make a saturated solution of alum, and use this to make a paste of plaster of paris. (2) Plaster of paris made into a paste with boiled linseed oil. (3) Smear the surface of the glass with india rubber solution, and do the same with the surface of the metal. Allow both to stand till the smell is gone—perhaps 24 hours—in a warm room. Then slide the one upon the other, and they will stick together. If the space between the two is appreciable—that is, more than paper thickness—interpose a collar of pure rubber of the proper thickness ; cut a strip of the right width, and of a length that will wrap round without overlapping. Smear the ends that abut and the glass with rubber solution, and let the solvent evaporate, then wrap the collar round the glass, and the ends will unite.—*Phar. Era.*

NEW PROCESS FOR SYRUP OF RHUBARB.

The present process for this syrup is wasteful. If the spirit is recovered by distillation, most of the aroma of the rhubarb and coriander pass over, and, of course, is absent from the syrup. I would suggest the following formula :

Rhubarb root	8 oz.
Coriander fruit	8 oz.
Rectified spirit	5 oz.
Distilled water	q.s.
Refined sugar	6 lbs.

Powder the rhubarb and coriander, using No. 20 sieve. Place the portion which, after several times powdering, refuses to pass the sieve at the bottom of the percolator, then add that which passes the sieve, using but little pressure. Mix the 5 ounces of spirit with 16 of distilled water, and pour on the powders. Macerate thus for twenty-four hours, then continue to add distilled water until 52 ounces have passed. In this dissolve the sugar with a gentle heat. Percolation may be continued until about 3 pints more have passed, this evaporated by water bath to 4 ounces, and strained into a syrup. I enclose a sample prepared thus, also one made strictly P. B. (except that I recovered 6 ounces of spiritus rhei *c.* coriand. of S.G. .897 by distillation). Should like your opinion as to aroma, etc. The P.B. is the brighter, because the liquid was filtered through paper.

Commenting on the above, the editor of the *Journal* says : "The aroma of the sample of syrup of rhubarb prepared by the suggested process is decidedly finer than that of the accompanying P.B. specimen. Besides being less clear, however, it also appears more liable to fermentation than the latter, the cork having been forcibly ejected from the bottle containing it, and the fermentative action continuing for some days, whereas in the P.B. syrup no such action was apparent under identical conditions." — *J. Clower, in Pharmaceutical Journal and Transactions.*

Cough Drops Formulas.

Though somewhat obscured by unusual technical directions, the following will no doubt prove intelligible, and may offer valuable suggestions :

MONTPELIER COUGH DROPS.

Brown sugar	10 pounds
Tartaric acid	2 ounces
Cream of tartar	1½ ounce
Water	1½ quarts
Aniseed flavoring	a sufficient quantity

Melt the sugar in the water, and when at a sharp boil add the cream of tartar. Cover the pan for five minutes. Remove the lid, and let the sugar boil up to crack degree. Turn out the batch on an oiled slab, and when cool enough to handle mould in the acid and flavoring. Pass it through the acid drop rollers, and when the drops are chipped up, and before sifting, rub some icing with them.

MEDICATED COUGH DROPS.

Light brown sugar	14 pounds
Tartaric acid	1½ ounces
Cream of tartar	½ ounce
Water	2 quarts
Aniseed, cayenne, clove, and peppermint flavorings	a few drops of each

Proceed as before described, but when sufficiently cool pass the batch through the acid tablet rollers, and dust with sugar.

HOREHOUND CANDY.

Dutch crushed sugar	10 pounds.
Dried horehound leaves	2 ounces.
Cream of tartar	¾ ounce.
Water	2 quarts.
Aniseed flavoring	sufficient.

Pour the water on the leaves and let it gently simmer till reduced to three pints ; then strain the infusion through muslin, and add the liquid to the sugar. Put the pan containing the syrup on the fire, and, when at a sharp boil, add the cream of tartar. Put the lid on the pan for five minutes, then remove it and let the sugar boil to stiff boil degree. Take the pan off the fire and rub portions of the sugar

against the side until it produces a creamy appearance ; then add the flavoring. Stir all well and pour into square tin frames, previously well oiled. — *Confectioners' Union.*

CHEAP COUGH STICKS.

Brown sugar	12 pounds
Glucose	8 pounds
Tartaric acid	1 ounce
Water	2 quarts
Aniseed flavoring and jetoline coloring	sufficient

Turn the sugar and glucose into the water, and, when dissolved, boil up to weak crack degree. Pour on an oiled slab, and add the flavoring and coloring. Work these well in, and run the batch through the flat stick rollers, cutting the sticks to weigh 1½ ounces each. Wrap separately in waxed paper.

PAREGORIC COUGH DROPS.

Brown sugar	14 pounds
Cream of tartar	½ ounce
Tartaric acid	1½ ounces
Ground ginger	1 ounce
Water	2 quarts
Aniseed flavoring and paregoric	sufficient

Work the ingredients together in the same way as directed in the preceding recipe, adding the cream of tartar to the sugar directly the latter boils. When poured, incorporate all the flavorings, and run the batch through the cough drop rollers. Care should be exercised in the quantity of paregoric used.

Frigotherapy.

According to the *British Medical Journal*, M. Raoul Pictet has extended his application of low temperatures to the treatment of dyspepsia, under the name of "Frigotherapy," and, being a sufferer from indigestion, has ascertained, by experiments upon himself, that exposure to a very low temperature for several minutes relieves indigestion and excites hunger. By repetition of the treatment his stomach affection was entirely eured.—*Pharmaceutical Journal.*

Tablets of Wine.

According to *Industries and Iron*, London, November 10, trials are being made in France with a view to concentrate wine in tablets for transport. The ripe grapes are pressed as in the manufacture of white wine. By means of a pump the juice is transferred into an apparatus where it is evaporated *in vacuo* : the boiling plant is between 30 and 45 degrees C. The vapor is drawn off by a pump and condensed. As soon as the mass has the consistency of a syrup, it is mixed with the pulp. Thus a sort of marmalade is produced containing 80 per cent. of grape sugar. In order to make wine this is dissolved in water to a strength of 8 to 9 degrees, and then flavored.

Photographic Notes

Porous Glass for Windows.—The latest hygienic craze in Paris is the use of porous glass for windows. This is declared to possess all the advantages of the ordinary window-framing, and, while light is as freely admitted as through the medium of common glass, the "porous" further admits air too, the minute holes with which this is intersected being too fine to permit of any draught, while they provide a healthy continuous ventilation through the apartment.

A New Developer.—The following was communicated to the French Photographic Society : .

Water	1000 c.c.
Sulphite	100 grams.
Dissolve in warm water, and add—	
Metol	5 grams.
Hydroquinone	7 grams.
After solution—	
Carbonate of potash	40 grams.

—*American Photographic Journal.*

Hardening Solution.—In the London letter of the *Photographic Journal* of India, the following frequently recommended solution for hardening gelatine negatives is given, and strongly endorsed :

Tannin	60 grains
Alum	1 ounce
Water	10 ounces

Immerse the fixed and washed negative in the above solution for fifteen minutes ; wash well and dry.

Mr. Bassett recommends the following combination of metol and hydroquinone for those who find metol with sodium bicarbonate too slow :

Metol	¼ ounce
Hydroquinone	¼ ounce
Sodium sulphite	4 ounces
Carbonate of soda	2½ ounces
Water	80 ounces

He showed us fourteen prints from different negatives that were developed with five ounces of this developer, all of which were excellent. He said that it would easily have developed many more, but fourteen was the entire batch.—*Photo-Beacon.*

New Photographic Reducer. — A correspondent of the *Amateur Photographer* recommends a new combination for reducing over-exposed prints. A cold saturated solution of sodium hyposulphite (about 20 per cent.) is diluted with four times its volume of water. To 100 c.c. of this is added 1 c.c. of a 10 per cent. solution of uranium nitrate. The prints are immersed in the solution for a few minutes until sufficiently reduced, then washed, and fixed with the following solution : Lead nitrate, 10 parts (? grammes), and sodium hyposulphite, 200 parts, are dissolved in distilled water, 1000, whilst just before using 50 c.c. of a 1 per cent. of gold chloride solution is added, *Nouveaux Remèdes.*

To Check Development.—Various suggestions have been made as to methods of completely stopping the development of a gelatino-bromide negative plate, and one of the most convenient methods is to use an alcoholic solution of bromide of cadmium, as by this means one at the same time charges the film with bromide and eliminates the water. The *Revue Suisse* recommends the following bath :

Bromide of cadmium	1 ounce
Alcohol	18 fluid ounces

After five minutes' immersion in the bath the negative may be exposed even to direct sunlight, and can be preserved any length of time before being fixed.—*American Journal of Photography.*

Protection of the Hands of Those who Work in Water. — Apprentices, bottle-washers, etc., whose hands are almost constantly wet, are liable to an eczematous affection, the seat of which is usually around the edges of the nails. It is sometimes so severe that the hands are practically disabled. It may be avoided by keeping convenient a mixture of olive oil, lanolin, vaselin, and glycerin, in equal parts, melted together, and about 5 per cent. of campho-phenique, mixed with it while hot. This should be rubbed on the fingers at night when retiring. In the morning wash the hands with good castile soap, dry them, and again apply the mixture. In a very short time the eczema disappears, and it will not reappear as long as the preparation is used.—*National Druggist.*

Mending Cracked Negatives.—To make a cracked negative fit for use, Dr. Miethe recommends the following process : Place the broken negative, the film of which must be intact, film side down, upon a metal plate which has been heated so that it can hardly be touched by the hand. The break is then covered with Canada balsam, which readily melts and fills up the cracks. To give the negative more stability, a large piece of the Canada balsam is put upon the centre of the back of the negative, and a clean glass plate, the same size as the negative, is laid over all. The melted balsam spreads out evenly, the excess being squeezed out. After cooling, the plates are still further fastened around the edges with strips of Sheplie gum paper.—*American Journal of Photography.*

To Protect Photographic Prints. —The most injurious effects upon all photographic prints are caused by moisture, and for that reason the most acceptable carrier of light-sensitive substances is collodion. A collodion pellicle hardens very much in course of time, and if, according to a writer in the *Photographic Times*, the picture is afterwards protected by a stratum of varnish, impervious to

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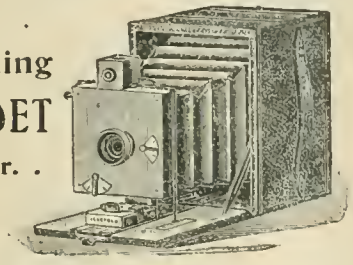

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Dr. Wilson's Dead Shot Worm Sticks
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Drug Mixer and Sifter

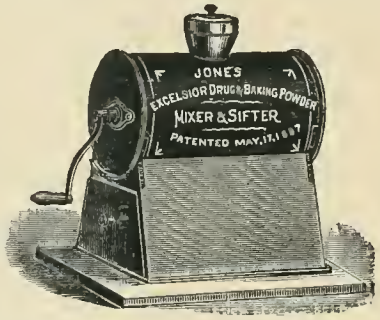
IMPROVED AND PERFECTED

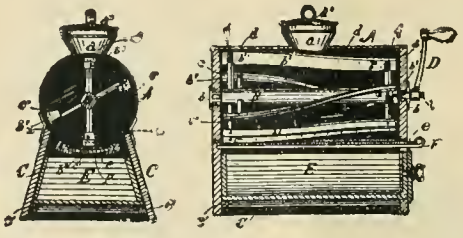
For Druggists, Manufacturing Chemists, Perfumers, Etc.

Suitable for the manufacture of Baking Powder, Tooth Powder, Face Powder, Condition Powder, and for the Compound Powders of the Pharmacopœia.

These are made in Three Sizes—SUITABLE TO MIX 5 lbs., 10 lbs., and 25 lbs.—at $6, $12, and $18 each.

Easily Cleaned and No Wood To Scent.





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RUBBER BRUSH RUBS ALL LUMPS OUT OF POWDER BEFORE IT IS SIFTED.

These Machines mix the powders thoroughly, and then force them through sieves of the proper fineness for the intended powders. Two Sieves, 40 and 60 mesh, with each Mixer.

This Mixer and Sifter is handled by the prominent wholesale druggists of the United States, and gives general satisfaction. Amongst those handling them are: Morrison & Plummer, Chicago; Bullock & Crenshaw, and Smith, Kline & Co., Philadelphia; W. H. Scheffelin & Co., and McKesson & Robbins, New York, and others.

The 10 lb. Mixer is specially adapted for the general requirements of the Retail Druggist.

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ANTISEPTIC PERLES

Of Pleasant Taste and Fragrance.

Non-Poisonous and strongly Antiseptic.

These Perles closely resemble the sublimates and carbolic acid in their antiseptic action. A preventive of diphtheric infection.

For the rational cleansing and disinfection of the mouth, teeth, pharynx, and especially of the tonsils, and for immediately removing disagreeable odors emanating from the mouth and nose.

A perfect substitute for mouth and teeth washes and gargles. Radlauer's Antiseptic Perles take special effect where swallowing is difficult in inflammation of the throat and tonsils, catarrh of the gums, periostitis dentalis, stomatitis mercurialis, salivation, angina, and thrush.

A few of the "Perles" placed in the mouth dissolve into a strongly antiseptic fluid of agreeable taste, cleanse the mouth and mucous membrane of the pharynx, and immediately remove the fungi, germs, and putrid substance accumulating about the tonsils, thereby preventing any further injury to the teeth.

METHOD OF APPLICATION:

Take 2—4 Perles, let them dissolve slowly in the mouth, and then swallow. Being packed in small and handy tins, Radlauer's Antiseptic Perles can always be carried in the pocket.

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S. RADLAUER - Pharmaceutical Chemist

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We are the largest refiners of LIME JUICE *in America, and solicit enquiries.*

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Is an acknowledged Leader among HEADACHE and NEURALGIA Remedies.

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moisture, absolute durability of the print is attained. Such a varnish is composed of saturated solution of amber in :

Chloroform	g. 45.0
Coal tar benzole, pure	" 45.0
Damar	" 7.5

The varnish flows as freely as collodion, and covers the film with a hard, glassy substratum. To prevent moisture from acting upon the reverse side of the picture, an appropriate mountant should be resorted to. Ordinary starch, flour, or gelatin paste will not do, but instead of it he recommends a rather thickish solution of shellac in alcohol.

One Operation Toning and Fixing Solution.—*Mesol*, according to P. Mercier (*Photo. Times*), is a toning-fixing bath prepared to obtain a toning bath which preserves its activity, and, at the same time, a fixing bath yielding proofs having good keeping qualities. The first object is attained by communicating to the bath the most complete neutrality by the presence of talc, which is a silicate of alumia and of magnesia. As to the second desideratum, this is also attained by the neutrality of this bath, as also by the presence of a good proportion of sodium chloride and of lead acetate. In mesol, the black plumbic compound formed in the light is entirely fixed by the talc, in such a way that the bath always remains clear. Here is a mesol formulæ :

Sodium hyposulphite	150
Sodium chloride	50
Sodium acetate	10
Lead acetate	15
Talc, powdered	15
Water	10,00

After dissolving, add the talc, and after agitating,

Gold chloride	0.5

When not in use the bath must contain talc in excess.

An Enterprising Japanese Pharmacist.

Mr. Motoyosi Saizau, a Japanese, writes an interesting article in the *Revue des Revues* of Paris on "Journalism in Japan." The founder of Japanese journalism, he says, was a pharmaceutical chemist named Kishida-Chinkau, who issued some twenty-five years ago a periodical sheet to spread the praise of his medicines. It came out twice or three times a month. Politics he was forbidden by law from touching ; but in order to make his circular more interesting, he introduced into it society paragraphs and sensational police cases, and even serial stories from national legends. Still, journalism languished in Japan till the introduction of modern printing presses, when it fast became prosperous. Kishida-Chinkau was, however, ruined by competition. The Japanese have now upwards of 400 dailies, costing a half-penny or a penny, and something like 300 reviews or magazines. — *Chemist and Druggist.*

Pharmaceutical Notes.

A Delicate Reaction for Morphine.—Lama gives the following reaction as detecting .000005 gramme of morphine : A few drops of the solution are placed in a porcelain capsule, with an equal quantity of uranium acetate solution (.03 gr. uranium acetate and .02 grain sodium acetate in 10 c.c.). A brilliant red color results at once. Oxymorphine gives the reaction as well as morphine.—*Apotheker Zeitung.*

Phosphoglycerate of Lime.—A new process of Messrs. Portes and Prunier enables this now somewhat popular remedy to be obtained at a cheaper rate. Briefly, the operations are as follows : Equal parts of glycerine and phosphoric acid are allowed to stand for six hours at 110° C. The acid is then saturated with carbonate of calcium. After repeated purifications the product is obtained as a white crystalline powder, more soluble in cold than in hot water.—*Bulletin de la Soc. de Pharmacie.*—(*British and Col. Druggist.*)

The Crystallization of Syrups.—M. Carles, in the current number of the *Repertoire de Pharmacie*, deals with this question in an interesting paper, of which the chief points are the following : Syrups will either keep intact as is the case with syrups of chloral, cherry-laurel, etc., or they ferment as in the case of syrups of ipecac, opium, violets, fruit syrups, etc. ; or they will crystallize, and then, as they have, so to speak, lost part of their sugar, are considered easily liable to alteration. This last idea is, however, found to be incorrect. The author's experience is that syrup can easily be supersaturated with sugar, and that when left at rest, and in a cooler place than that in which they were prepared, they deposit the excess of sugar and return to their normal state, and leave properly saturated syrup. In the author's experience this is the sole cause of the phenomenon.—*Repertoire.*

Maltol.—An inodorous substance, soluble in all proportions in hot water, chloroform, and acetic acid ; but slightly soluble in cold water and benzine ; freely soluble in alcohol, ether, etc. It melts at 159° C., and has the formula $C_6H_6O_3$. It is a constituent of malt caramel, from which it is obtained by condensation of the empyrheumatic vapors produced in the torrefication of malt (in the preparation of the so-called malt-coffee). A hundred kilograms of malt (200 lbs.) produce between 1.80 and 4.20 gm. of maltol. The latter presents the characteristics of a phenol, being soluble in sodium hydrate, from which solution it is precipitated by carbonic acid. The discovery and separation of maltol removes a very grave source of error in the analysis of beer, it having previously been confounded with salicylic acid in the latter.—*National Druggist.*

Solubility of Cocaine Hydrochlorate in Vaselin.—In answer to a dispensing query in *The Chemist and Druggist*, several correspondents recommend to rub up or dissolve the hydrochlorate of cocaine in a minimum quantity of water, and then thoroughly incorporate with the vaselin. Such an ointment is probably more efficacious than a solution of the alkaloid itself in a fatty excipient, but in either case the addition of oleic acid would be undesirable, remarks one correspondent. Another suggests that a better preparation would be made by dissolving the alkaloid itself in oleic acid, and mixing this with the vaselin, though this course would not be justifiable when the hydrochlorate of the alkaloid is prescribed. It may be pointed out, however, that the evident desire of the inquiry was to ascertain how the salt might be incorporated in the ointment in a state of solution. It is slightly soluble in melted vaselin, but only to the extent of about half what is ordered in the prescription. The alkaloid itself is more soluble, but its use would not be justified, and whether the hydrochlorate would be partially dissolved or not would depend to some extent on what was known regarding the prescriber's intentions.—*Chemist and Druggist.*

"Stock Calomel," according to the *Meyer Brothers' Druggist*, is the name applied to a commercial commodity of questionable composition. Its sale seems to be confined principally to Texas, where the article is employed in the treatment of wounds on cattle. The article is evidently the outgrowth of the demand for a large quantity, in return for a little amount of money, without regard to quality. While pure calomel is required for human beings, there is a feeling that almost anything will do for dumb animals. An investigation reveals the fact that under the name of stock calomel the following mixtures are sold at prices in accordance with the composition : (1) Calomel, one part ; white lead, three parts. (2) Calomel, one part ; white lead, seven parts. (3) Calomel, one part ; flaxseed meal, one part. (4) Calomel, three parts ; white lead, two parts. (5) Calomel, one part ; sugar, one part.

Obtaining Pure Chlorine.—Gooch and Kreider state that chlorine evolved by action of hydrochloric or sulphuric acids, diluted with twice their volume of water, upon potassium chlorate, consists of about equal parts of chlorine and chlorine dioxide. With concentrated hydrochloric acid, cooled to 0° C., the yield of chlorine is about 85 per cent. of the mixed gases evolved, and with hot concentrated hydrochloric acid the yield is 75 per cent. pure chlorine, but, when heated, the acid itself is volatilized and reduces this per cent. They recommend for laboratory purposes the use of hydrochloric acid diluted with an equal weight of water and heated to 60° or 70° C., when it reacts upon the chlorate to give

chlorine as pure as is required (80 to 85 per cent. pure). Chlorine, as evolved from the generator, is never pure, but can be purified by passing the dry gas through a tube containing asbestos fibre, heated by a bunsen flame. The heat decomposes the chlorine dioxide, and pure chlorine can thus be collected.—*Chemical News.*

THE GASEOUS PRODUCTS EVOLVED FROM WOOD CHARCOAL WHEN SUBMITTED TO A HIGH TEMPERATURE WITH THE EXCLUSION OF AIR.—The mean composition of the gaseous products of distillation are :

Carbonic acid	9.14
Oxygen	0.26
Carbon monoxide	18.08
Hydrogen	49.11
Marsh-gas	16.04
Nitrogen	7.37
	100.00

Hence the reaction $C + CO_2 = 2CO$ hitherto admitted as the expression of the truth is much more complicated than the above formula indicates. The wood charcoal which has undergone the operation burns without odor or smoke, and is, in some cases, preferable to ordinary charcoal. The antiseptic properties of the gaseous mixture are superior to those of carbon monoxide.—*Chemical News.*

Reactions of Phenacetin.

Bayer (*Journ. de Pharm. d'Anvers*) gives the following tests for phenacetin : (1) When heated with a small proportion of hydrochloric acid and the mixture dissolved in water, the resulting solution becomes of a ruby-red color on the addition of chromic acid. (2) Chlorine water or chlorinated lime in solution gives a violet color, passing to ruby-red in the presence of phenacetin. (3) Dissolved in concentrated sulphuric acid it is colored red by the addition of a few drops of nitric acid. This reaction distinguishes it from acetanilid. (4) Heated with a few drops of sulphuric acid and a trace of phenol it produces a purplish-red color, and gives off an odor of acetic acid. (5) A solution of 0.01 gram of phenacetin in 10 c.c. of boiling water after cooling is not rendered turbid by the addition of sufficient bromide water to produce a yellow coloration.

Nitropentaerythrite and a Smokeless Explosive.

An application for a patent under the above name has been made. The process of manufacture is as follows : The product known under the name of pentaerythite resulting from the condensation of acetaldehyde and formaldehyde in presence of lime, and having its fusing point between 190° and 260° C., is reduced to a very fine powder, and is then dissolved in nitric acid, and precipitated by concentrated sulphuric acid, or may be brought into a mixture of nitric acid and sulphuric acid.

The crystalline solid thereby produced is separated from the liquid, washed with water, and any acid that is left in contact with it is neutralized by a diluted solution of soda. The substance is then pulverized while in a moist condition.

The substance thus produced may be pressed or brought into a granular form as a smokeless explosive, or it may be mixed with nitro-cellulose.

The claims for a patent are :

(1) The method of production as described.

(2) The production of a smokeless explosive.

(3) An enumeration of various substances with which it may be combined. —*Manufacturing Chemist.*

The Spanish Cork Industry.

An official in the French Forestry Department, who was recently sent out by the French Government to inspect the cork forests of Spain, has just presented his report to the government. He estimates that about 1,550,000 acres of land are planted with cork trees in Spain. The province which is richest in cork trees is Gerona, with 395,000 acres of forest ; then follows Huelva, 335,000 ; Caceres, 200,000 ; Seville, 181,000; Cadiz, 137,500 ; Ciudad Real, 70,000 ; and Cordova, 57,000 acres. The ten provinces of Badajoz, Jaen, Malaga, and Toledo (in the south), and Burgos, Santander, Zamora, Salamanca, Avile, and Saragossa (in the north) have cork plantations ; but the trees do not flourish in any of them. Thirty-two provinces contain no cork plantations at all. It is just a hundred years since a cork factory was started in Gerona, since then the manufacture of cork has blossomed into one of the chief industries of Spain. The largest factories are at Gerona, Avenys de Mar (Barcelona), San Celoni, and Tordera. Over one thousand four hundred million corks for bottles, representing a value of seventeen million pesetas (£540,000) are turned out of the factories every year. About 12,000 men are employed in the work. It is difficult to calculate the income which cork brings in, as statistics in Spain are very faulty, and no account is kept of the cork that is used in the country itself. It is estimated, however, that during the past year £1,073,800 was paid for the cork that was exported. The chief markets for raw and manufactured cork are London, Paris, Reims, Epernay, Mainz, Dresden, New York, Calcutta, Melbourne, Sydney, and Yedda.—*Foreign and Colonial Importer.*

SALIFEBRIN or SALICYLANILID is the latest "coal-tar derivative" marketed by Radlauer. According to the *Pharmaceutische Wochenschrift*, it is a mechanical mixture of salicylic acid and acetanilid, with corresponding properties.

Details That Will Take Care of Themselves.

If there ever was an occupation requiring watchful care, it is that of the pharmacist. There are so many new remedies announced each year that get farther than the manufacturers' advertisements in the trade journals—yes, even so far as the druggists' prescription shelf. One by one these things accumulate, and, as time goes by, it becomes difficult in some cases to get reliable data referring to the dose, properties, solubilities of these once new remedies.

If the druggist will trim a neat blank label and gum it on the back of each bottle, he will find that he will need all of its space in which to write a few things down —details that will take care of themselves. The first thing to note down is the cost price per ounce. Then follows the selling price per grain or drachm. If the pharmacist will continue his statistics further, he should add the dose, usual and maximum, then the effects on the system, in one or two words—and we have plenty in the vocabulary to describe each therapeutic effect, by the way—giving also the incompatibles and solubility, concluding with an advisable vehicle.

It may be a year or two—yes, even longer—when these same facts, gleaned at the time from the books and journals, will be of great service to the one dispensing. Maybe it will be a new clerk, or assistant, or the proprietor, who will be asked by a physician or patient the dose, effect, compatibility or solvent for this identical, yet out-of-the-way remedy. By embodying all this in a few words, and writing it on a small label on the bottle, the answer will always be at hand, and where it is most needed.

It is just these peculiar remedies that your physician may ask you about, and it is your business to furnish the information. He may, doubtless, know the therapeutic value and dose, yet inquire for its solubility and a pleasant method of administration. If every out-of-the-way chemical or preparation is thus labelled, the compounding of a prescription calling for it would be more of a pleasure than a task, and still serve to relieve the druggist's memory of details which will then take care of themselves. —*Frank T. Green, in Pacific Druggist.*

PARAFORM.—According to Aronsohn (*Jour. d. Phar. v. Elsass-Loth.*), when formaldehyde is heated for a sufficient length of time in a watery solution, it passes into a solid, white, crystalline polymer, insoluble in water. This is paraform. It is a very strong intestinal antiseptic. For this purpose it is said to be superior to B-naphthol, iodoform, salol, dermatol, and benzo-naphthol. It has a strong inhibitory action on the propagation of bacilli. One grain of paraform will completely sterilize 200 grams of urine.

4 and 8 oz. Toilet Water.

SEELY, THE AMERICAN PERFUMER

NEW PERFUMES

TOILET WATER ASSORTMENT.

VIOLET,
ROSE,
HELIOTROPE,
LAVENDER,
ORANGE,
LILAC,
MAGNOLIA.

SWEET MIGNONETTE,
LILLIAN RUSSELL,
MAGNOLIA BLOSSOM.

THESE NEW PRODUCTS OF OUR LABORATORY ARE VERY LASTING AND FRAGRANT.

Seely Manufacturing Company,

DETROIT, MICHIGAN. *ESTABLISHED IN 1862.* *WINDSOR, ONTARIO.*

CANADIAN DRUGGIST PRICES CURRENT

Corrected to February 10th, 1895.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal	$4 05	$4 25
Methyl	1 90	2 00
ALLSPICE, lb	13	15
Powdered, lb	15	17
ALOIN, oz	40	45
ANODYNE, Hoffman's hot., lbs	50	55
ARROWROOT, Bermuda, lb	45	50
St. Vincent, lb	15	18
BALSAM, Fir, lb	40	45
Copaiba, lb	65	75
Peru, lb	2 50	2 75
Tolu, can or less, lb	65	75
BARK, Barberry, lb	22	25
Bayberry, lb	15	18
Buckthorn, lb	15	17
Canella, lb	15	17
Cascara, Sagrada	25	30
Cascarilla, select, lb	18	20
Cassia, in mats, lb	18	20
Cinchona, red, lb	60	65
Powdered, lb	65	70
Yellow, lb	35	40
Pale, lb	40	45
Elm, selected, lb	20	21
Ground, lb	17	20
Powdered, lb	20	28
Hemlock, crushed, lb	18	20
Oak, white, crushed lb	15	17
Orange peel, bitter, lb	15	16
Prickly ash, lb	35	40
Sassafras, lb	15	16
Soap (quillaya), lb	13	15
Wild cherry, lb	13	15
BEANS, Calabar, lb	45	50
Tonka, lb	1 50	2 75
Vanilla, lb	8 00	10 00
BERRIES, Cubeb, sifted, lb	50	55
powdered, lb	55	60
Juniper, lb	7	10
Ground, lb	12	14
Prickly ash, lb	40	45
BUDS, Balm of Gilead, lb	55	60
Cassia, lb	25	30
BUTTER, Cacao, lb	75	80
CAMPHOR, lb	65	68
CANTHARIDES, Russian, lb	1 40	1 50
Powdered, lb	1 50	1 60
CAPSICUM, lb	25	30
Powdered, lb	$ 30	$ 35
CARBON, Bisulphide, lb	17	18
CARMINE, No. 40, oz	40	50
CASTOR, Fibre, lb	20 00	20 00
CHALK, French, powdered, lb	10	12
Precip., see Calcium, lb	10	12
Prepared, lb	5	6
CHARCOAL, Animal, powd., lb	4	5
Willow, powdered, lb	20	25
CLOVE, lb	25	30
Powdered, lb	30	35
COCHINEAL, S.G., lb	40	45
COLLODION, lb	75	80
Cantharidal, lb	2 50	2 75
CONFECTION, Senna, lb	40	45
Creosote, Wood, lb	2 00	2 50
CUTTLEFISH BONE, lb	25	30
DEXTRINE, lb	10	12
DOVER'S POWDER, lb	1 50	1 60
ERGOT, Spanish, lb	75	80
Powdered, lb	90	1 00
Ergotin, Keith's, oz	2 00	2 10
EXTRACT, Logwood, bulk, lb	13	14
Pounds, lb	14	17
FLOWERS, Arnica, lb	15	20
Calendula, lb	55	60
Chamomile, Roman, lb	30	35
German, lb	40	45
Elder, lb	20	22
Lavender, lb	12	15
Rose, red, French, lb	1 60	2 00
Rosemary, lb	25	30
Saffron, American, lb	75	80
Spanish, Val'a, oz	1 00	1 25
GELATINE, Cooper's, lb	75	80
French, white, lb	35	40
GLYCERINE, lb	14	16
GUARANA	3 00	3 25
Powdered, lb	3 25	3 50
GUM ALOES, Cape, lb	18	20
Barbadoes, lb	30	50
Socotrine, lb	65	70
Asafœtida, lb	40	45
Arabic, 1st, lb	65	70
Powdered, lb	75	85
Sifted sorts, lb	40	45
Sorts, lb	25	30
Benzoin, lb	50	1 00
Catechu, Black, lb	9	20
Gamboge, powdered, lb	1 20	1 25
Guaiac, lb	50	1 00
Powdered, lb	70	75
Kino, true, lb	1 25	
Myrrh, lb	$ 45	$ 48
Powdered, lb	55	60
Opium, lb	4 25	4 50
Powdered, lb	6 00	6 50
Scammony, pure Resin, lb	12 80	13 00
Shellac, lb	45	48
Bleached, lb	45	50
Spruce, true, lb	30	35
Tragacanth, flake, 1st, lb	90	1 00
Powdered, lb	1 10	1 15
Sorts, lb	45	75
Thus, lb	8	10
HERB, Althea, lb	27	30
Bitterwort, lb	27	30
Burdock, lb	16	18
Boneset, ozs, lb	15	17
Catnip, ozs, lb	17	20
Chiretta, lb	25	30
Coltsfoot, lb	20	38
Feverfew, ozs, lb	53	55
Grindelia robusta, lb	45	50
Hoarhound, ozs., lb	17	20
Jaborandi, lb	45	50
Lemon Balm, lb	38	40
Liverwort, German, lb	38	40
Lobelia, ozs, lb	15	20
Motherwort, ozs, lb	20	22
Mullein, German, lb	17	20
Pennyroyal, ozs, lb	18	20
Peppermint, ozs., lb	21	25
Rue, ozs., lb	30	35
Sage, ozs., lb	18	20
Spearmint, lb	21	25
Thyme, ozs., lb	18	20
Tansy, ozs., lb	15	18
Wormwood, oz	20	22
Yerba Santa, lb	38	44
HONEY, lb	13	15
HOPS, fresh, lb	20	25
INDIGO, Madras, lb	75	80
INSECT POWDER, lb	25	28
ISINGLASS, Brazil, lb	2 00	2 10
Russian, true, lb	6 00	6 50
LEAF, Aconite, lb	25	30
Bay, lb	18	20
Belladonna, lb	25	30
Buchu, long, lb	50	55
Short, lb	20	22
Coca, lb	35	40
Digitalis, lb	15	20
Eucalyptus, lb	18	20
Hyoscyamus	20	25
Matico, lb	70	75

Senna, Alexandria, lb	$ 25	$ 30
Tinnevelly, lb	15	25
Stramonium, lb	20	25
Uva Ursi, lb	15	18
LEECHES, Swedish, doz	1 00	1 10
LICORICE, Solazzi	45	50
Pignatelli	35	40
Grasso	30	35
Y & S—Sticks, 6 to 1 lb., per lb.	27	30
" Purity, 100 sticks in box	75	75
" Purity, 200 sticks in box	1 50	1 50
" Acme Pellets, 5 lb. tins	2 00	2 00
" Lozenges, 5 lb. tins	1 50	1 75
" Tar, Licorice, and Tolu, 5 lb. tins	2 00	2 00
LUPULIN, oz	30	35
LYCOPODIUM, lb	70	80
MACE, lb	1 20	1 25
MANNA, lb	1 60	1 75
Moss, Iceland, lb	9	10
Irish, lb	9	10
MUSK, Tonquin, oz	46 00	50 00
NUTGALLS, lb	21	25
Powdered, lb	25	30
NUTMEGS, lb	1 00	1 10
NUX VOMICA, lb	10	12
Powdered, lb	25	27
OAKUM, lb	12	15
OINTMENT, Merc., lb. ½ and ½	70	75
Citrine, lb	45	50
PARALDEHYDE, oz	15	18
PEPPER, black, lb	22	25
Powdered, lb	25	30
PITCH, black, lb	3	4
Bergundy, true, lb	10	12
PLASTER, Calcined, bbl. cash	2 25	3 25
Adhesive, yd	12	13
Belladonna, lb	65	70
Galbanum Comp., lb	80	85
Lead, lb	25	30
POPPY HEADS, per 100	1 00	1 10
ROSIN, Common, lb	2½	3
White, lb	3½	4
RESORCIN, white, oz	25	30
ROCHELLE SALT, lb	25	28
ROOT, Aconite, lb	22	25
Althea, cut, lb	30	35
Belladonna, lb	25	30
Blood, lb	15	16
Bitter, lb	27	30
Blackberry, lb	15	18
Burdock, crushed, lb	18	20
Calamus, sliced, white, lb	20	25
Canada Snake, lb	30	35
Cohosh, black, lb	15	20
Colchicum, lb	40	45
Columbo, lb	20	22
Powdered, lb	25	30
Coltsfoot, lb	38	40
Comfrey, crushed, lb	20	25
Curcuma, powdered, lb	13	14
Dandelion, lb	15	18
Elecampane, lb	15	20
Galangal, lb	15	18
Gelsemium, lb	22	25
Gentian or Genitan, lb	9	10
Ground, lb	10	12
Powdered, lb	13	15
Ginger, African, lb	18	20
Po., lb	20	22
Jamaica, blchd., lb	27	30
Po., lb	30	35
Ginseng, lb	3 00	3 25
Golden Seal, lb	75	80
Gold Thread, lb	90	95
Hellebore, white, powd., lb	12	15
Indian Hemp	18	20
Ipecac, lb	1 30	1 50
Powdered, lb	1 60	1 70
Jalap, lb	55	60
Powdered, lb	60	65
Kava Kava, lb	40	90
Licorice, lb	12	15
Powdered, lb	13	15
Mandrake, lb	13	18
Masterwort, lb	16	40
Orris, Florentine, lb	30	35
Powdered, lb	40	45
Pareira Brava, true, lb	40	45
Pink, lb	75	80
Parsley, lb	30	35
Pleurisy, lb	20	25
Poke, lb	15	18
Queen of the Meadow, lb	$ 18	$ 20
Rhatany, lb	20	30
Rhubarb, lb	75	2 50
Sarsaparilla, Hond, lb	40	45
Cut, lb	50	55
Senega, lb	55	65
Squill, lb	13	15
Stillingia, lb	22	25
Powdered, lb	25	27
Unicorn, lb	38	40
Valerian, English, lb. true	20	25
Virginia, Snake, lb	40	45
Yellow Dock, lb	15	18
RUM, Bay, gal	2 25	2 50
Essence, lb	3 00	3 25
SACCHARIN, oz	1 25	1 50
SEED, Anise, Italian, sifted, lb	13	15
Star, lb	35	40
Burdock, lb	30	35
Canary, bag or less, lb	5	6
Caraway, lb	10	13
Cardamom, lb	1 25	1 50
Celery	30	35
Colchicum	50	60
Coriander, lb	10	12
Cumin, lb	15	20
Fennel, lb	15	17
Fenugreek, powdered, lb	7	9
Flax, cleaned, lb	3½	4
Ground, lb	4	5
Hemp, lb	5	6
Mustard, white, lb	11	12
Powdered, lb	15	20
Pumpkin	25	30
Quince, lb	65	70
Rape, lb	8	9
Strophanthus, oz	50	55
Worm, lb	22	25
SEIDLITZ MIXTURE, lb	25	30
SOAP, Castile, Mottled, pure, lb	10	12
White, Conti's, lb	15	16
Powdered, lb	25	35
Green (Sapo Viridis), lb	15	25
SPERMACETI, lb	55	60
TURPENTINE, Chian, oz	75	80
Venice, lb	10	12
WAX, White, lb	50	75
Yellow	40	45
WOOD, Guaiac, rasped	5	6
Quassia chips, lb	10	12
Red Saunders, ground, lb	5	6
Santal, ground, lb	5	6

CHEMICALS.

ACID, Acetic, lb	12	13
Glacial, lb	45	50
Benzoic, English, oz	20	25
German, oz	10	12
Boracic, lb	15	16
Carbolic Crystals, lb	18	25
Calvert's No. 1, lb	2 10	2 15
No. 2, lb	1 35	1 40
Citric, lb	50	55
Gallic, oz	10	12
Hydrobromic, diluted, lb	30	35
Hydrocyanic, diluted, oz. bottles doz	1 50	1 60
Lactic, concentrated, oz	22	25
Muriatic, lb	3	5
Chem, pure, lb	18	20
Nitric, lb	10½	13
Chem. pure, lb	25	30
Oleic, purified, lb	75	80
Oxalic, lb	12	13
Phosphoric, glacial, lb	1 00	1 10
Dilute, lb	13	17
Pyrogallic, oz	35	38
Salicylic, white, lb	1 00	1 10
Sulphuric, carboy, lb	2½	2¾
Bottles, lb	5	6
Chem. pure, lb	18	20
Tannic, lb	90	1 10
Tartaric, powdered, lb	30	32
ACETANILID, lb	90	1 00
ACONITINE, grain	4	5
ALUM, cryst., lb	1¾	3
Powdered, lb	3	4
AMMONIA, Liquor, lb., .880	10	12
AMMONIUM, Bromide, lb	80	85
Carbonate, lb	14	15
Iodide, oz	35	40
Nitrate, crystals, lb	40	45
Muriate, lb	12	16
Valerianate, oz	$ 55	$ 60
AMYL, Nitrite, oz	16	18
ANTINERVIN, oz	85	00
ANTIKAMNIA	1 25	1 30
ANTIPYRIN, oz	1 00	1 10
ARISTOL, oz	1 85	2 00
ARSENIC, Donovan's sol., lb	25	30
Fowler's sol., lb	13	15
Iodide, oz	50	55
White, lb	6	7
ATROPINE, Sulp. in ⅛ ozs. 80c., oz	5 00	5 00
BISMUTH, Ammonia-citrate, oz	35	40
Iodide, oz	50	55
Salicylate, oz	30	35
Subcarbonate, lb	2 25	2 40
Subnitrate, lb	2 00	2 10
BORAX, lb	9	10
Powdered, lb	10	11
BROMINE, oz	8	13
CADMIUM, Bromide, oz	20	25
Iodide, oz	45	50
CAFFEINE, oz	50	55
Citrate, oz	50	55
CALCIUM, Hypophosphite, lb	1 50	1 60
Iodide, oz	95	1 00
Phosphate, precip., lb	35	38
Sulphide, oz	5	6
CERIUM, Oxalate, oz	10	12
CHINOIDINE, oz	15	18
CHLORAL, Hydrate, lb	1 00	1 10
Croton, oz	75	80
CHLOROFORM, lb	60	1 90
CINCHONINE, sulphate, oz	25	30
CINCHONIDINE, Sulph., oz	15	20
COCAINE, Mur., oz	5 75	7 00
CODEIA, ¼ oz	1 00	1 10
COLLODION, lb	65	70
COPPER, Sulph., (Blue Vitrol) lb	6	7
Iodide, oz	65	70
COPPERAS, lb	1	3
DIURETIN, oz	1 60	1 65
ETHER, Acetic, lb	75	80
Sulphuric, lb	40	50
EXALGINE, oz	1 00	1 10
HYOSCYAMINE, Sulp., crystals, gr.	25	30
IODINE, lb	4 75	5 50
IODOFORM, lb	6 00	7 00
IODOL, oz	1 40	1 50
IRON, by Hydrogen	80	85
Carbonate, Precip., lb	15	16
Sacch., lb	30	35
Chloride, lb	45	55
Sol., lb	13	16
Citrate, U.S.P., lb	90	1 00
And Ammon., lb	70	75
And Quinine, lb	1 50	3 00
Quin. and Stry., oz	18	30
And Strychnine, oz	13	15
Dialyzed, Solution, lb	50	55
Ferrocyonide, lb	55	60
Hypophosphites, oz	25	30
Iodide, oz	40	45
Syrup, lb	40	45
Lactate, oz	5	6
Pernitrate, solution, lb	15	16
Phosphate scales, lb	1 25	1 30
Sulphate, pure, lb	7	9
Exsiccated, lb	8	10
And Potass. Tartrate, lb	80	85
And Ammon Tartrate, lb	80	85
LEAD, Acetate, white, lb	13	15
Carbonate, lb	7	8
Iodide, oz	35	40
Red, lb	7	9
LIME, Chlorinated, bulk, lb	4	5
In packages, lb	6	7
LITHIUM, Bromide, oz	30	35
Carbonate, oz	30	35
Citrate, oz	25	30
Iodide, oz	50	55
Salic ate, oz	35	40
MAGNESIUM, Calc., lb	55	60
Carbonate, lb	18	20
Citrate, gran., lb	35	40
Sulph. (Epsom salt), lb	1¾	3
MANGANESE, Black Oxide, lb	5	7
MENTHOL, oz	55	66
MERCURY, lb	75	80
Ammon (White Precip.)	1 25	1 30
Chloride, Corrosive, lb	1 00	1 10
Calomel, lb	1 00	1 10
With Chalk, lb	60	65

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchase of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the *special consideration* of the Business Notices.

Messrs. Buntin, Gillies & Co., the wholesale stationers in Hamilton, are advertising prompt and careful attention to mail orders. Their close proximity to the wholesale drug houses of Hamilton should make them a handy source of supply for goods such as they handle. The firm is an old-established one, and has a high reputation for fair dealing and good values.

SEEDS.—Attention is called to the advertisement of The Steele, Briggs, Marcon Co., Ltd., on page 260 of this issue. This firm is one of the largest dealers in field, garden, and flower seeds in the Dominion, and a hasty visit through their premises revealed the extent of the business transacted. The very large stock carried, the great attention paid to even the smallest details connected with the putting up and sale of their goods, and the means taken to ensure the sale of only reliable and first-class seeds, show plainly wherein the success of their business lies. The catalogue issued by this firm for 1895 is one of the handsomest on the continent, and only intensifies the fact that they do nothing by halves.

JAMES W. TUFTS' REPRESENTATIVES.—J. W. Tufts, manufacturer of soda water apparatus, Boston, Mass., has just issued a new catalogue, showing the latest designs in soda water fountains. One hundred and ten thousand copies of the January circular were mailed to the trade. Several changes in the staff of representatives have been made, Mr. W. L. Harkness being no longer with this house. Copies of the new illustrated catalogue and price list will be mailed on application.

PRICES OF TANGLEFOOT FOR 1895.—The O. & W. Thum Co. are pleased to announce that, thanks to the increased output for 1894, they are able to make a reduction in the price of twenty cents per case. The new prices will be:

In lots of less than one case, 50 cents per box.

In lots of one to five cases, $4.75 per case.

In lots of five cases and over, $4.50 per case.

Notwithstanding the reduction in price, the quality of tanglefoot is generally improved. Retailers should anticipate their season's wants and order the largest quantity they can use, thus securing the best possible price. In any quantity, however, Tanglefoot is nearly all profit.

Books and Magazines.

The Bulletin of Pharmacy comes to hand much improved typographically and in general appearance. Under the editorship of Prof. Oldberg, *The Bulletin* loses none of its aforetime excellence, and promises to be one of the "lights" of pharmacy.

We are in receipt to-day of a copy of a special edition of Copp, Clark & Co.'s *Canadian Almanac* for 1895, printed for the enterprising corporation of H. H. Warner & Co. (Ltd.), of London, England, who are now sole proprietors of "Warner's Safe Cure." It is full of valuable information, and reflects credit on the publishers, as well as on the enterprise of the English company.

CONAN DOYLE ON AMERICA.—Conan Doyle's impressions of the literary phases of American life are to be contained in an article to appear in the next issue of *The Ladies' Home Journal*. The article was originally intended to be the novelist's impressions of American women, but this plan was altered, and the article to be printed in *The Journal* will give Dr. Doyle's ideas of "Literary Aspects of America."

We are in receipt of the first number of *The Photogram de Luxe*, a beautiful edition, printed on heavy art paper, with a special supplement, and which is one of the choicest magazines published in connection with photography. The subscription price is 9s. per annum, post free. This work, or *The Photogram*, or *Photogram Folio*, may be had from all newsdealers. Publishers Messrs. Dawbarn & Ward (Ltd.), 6 Farringdon Ave., London, E.C., London.

DR. PARKHURST TO WOMEN.—Dr. Parkhurst starts out as a writer for women in the February *Ladies' Home Journal* in a way which promises to be most interesting. His vigorous style is in his work and his direct way of putting truths leave no room for misinterpreting his ideas about women. For his first article he coins a new word, "Andromaniacs," by which he designates the type of woman who wants to be mannish, and apes the ways of men. That he is not in sympathy with them is evident, and his promise of discussing the women who want to vote, who want to preach, and who desire to be in business, in his future *Journal* articles, gives further evidence of his deep interest in humanity.

LATE LITERARY NEWS.—General Lord Wolseley makes a most important contribution to the literature of the China-Japan war. In an article for the February *Cosmopolitan* he discusses the situation, and does not mince matters in saying what China must do in this emergency. Two other noted foreign authors contribute interesting articles to this number. Rosita Mauri, the famous Parisian danseuse, gives the history of the ballet, and Emile Ollivier tells the story of the fall of Louis Philippe. From every part of the world drawings and photographs have been obtained of the instruments used to torture poor humanity, and appear as illustrations for a clever article by Julian Hawthorne, entitled "Salvation *via* the Rack." Mrs. Reginald de Koven, Anatole France, W. Clark Russell, Albion W. Tourgee, and William Dean Howells are among the story-tellers for the February number of *The Cosmopolitan*.

In the February number of *Frank Leslie's Popular Monthly* the momentous conditions and prospects confronting Nicholas II., the young Czar of Russia, "On the Threshold of a Reign," are the subject of a peculiarly well-informed article by Valerien Gribayedoff. This is richly illustrated with pen drawings by the author, and a large number of rare portraits. Closely associated with the great Eastern Question, also, as well as possessing a highly picturesque interest of its own, is M. de Blowitz's account of "A Trip to Bosnia-Herzegovina." Theo Tracy tells the fascinating "Story of the Silkworm," charmingly illustrated with photographs specially taken for the purpose in the famous silk-raising districts of Friuli, in Northern Italy. The breezy log of "A Yachting Cruise in Scotch Waters," with numerous sketches of the same, is contributed by Commodore John McRae, of the Brooklyn Yacht Club.

The Delineator for March is the great spring number, and, in our opinion, is the finest issue of this popular magazine that has yet been published. All the departments are unusually well filled, and the fashions have an increased value through being the first authoritative pronouncement of the spring modes. The chief feature of the literary matter is a most comprehensive chapter on "Cards: Their Uses and Etiquette," by Mrs. Roger A. Pryor, this being the first of a series entitled "The Social Code." There is also a very interesting first article on "The Experiences of Life at a Training School for Nurses," with an introduction, by Mrs. Frederic Rhinelander Jones. "Woman as a Musician" is the subject of a "Conversation" between Edith M. Thomas and Dr. S. R. Elliott, to which is appended a delightful bit of verse by Miss Thomas. Mrs. Carrie M. Dearborn, ex-principal of the Boston Cooking School, writes of "The Teaching of Cookery as an Employment for Women," and Josephine Adams Rathbone of "A Girl's Life and Work at the University of Michigan." Mrs. Longstreet has an instructive paper on "The Care of the Hands and Feet." Mrs. Maude C. Murray contributes another chapter to her interesting series on "The Relations of Mother and Son," and Mrs. Witherspoon continues her entertaining gossip in "Around the Tea Table." Pleasurable and profitable employment is found in "Burnt Work," H. K. Forbes; "Venetian Iron Work," J. Harry Adams; and "Crepe and Tissue Papers," Tillie Roome Littell. The housewife will find much of value in the care of silver, cookery for the month, and hints on serving lemons, and the fancy worker will appreciate the new designs in Knitting, Netting, Tatting, etc.

Iodide, Proto, oz	$ 35	$ 40
Bin., oz	25	30
Oxide, Red, lb	1 15	1 20
Pill (Blue Mass), lb	70	75
MILK SUGAR, powdered, lb	30	35
MORPHINE, Acetate, oz	2 00	2 10
Muriate, oz	2 00	2 10
Sulphate, oz	2 00	2 10
PEPSIN, Saccharated, oz	35	40
PHENACETINE, oz	35	38
PILOCARPINE, Muriate, grain	20	22
PIPERIN, oz	1 00	1 10
PHOSPHORUS, lb	90	1 10
POTASSA, Caustic, white, lb	55	60
POTASSIUM, Acetate, lb	35	40
Bicarbonate, lb	15	17
Bichromate, lb	14	15
Bitrat (Cream Tart.), lb	22	25
Bromide, lb	55	60
Carbonate, lb	12	13
Chlorate, Eng., lb	18	20
Powdered, lb	20	22
Citrate, lb	70	75
Cyanide, lb	40	50
Hypophosphites, oz	10	12
Iodide, lb	4 00	4 10
Nitrate, gran, lb	8	10
Permanganate, lb	40	45
Prussiate, Red, lb	50	55
Yellow, lb	32	35
And Sod. Tartrate, lb	25	30
Sulphuret, lb	25	30
PROPLYLAMINE, oz	35	46
QUININE, Sulph, bulk	30	32
Ozs., oz	35	38
QUINIDINE, Sulphate, ozs., oz	16	20
SALICIN, lb	3 75	4 00
SANTONIN, oz	20	22
SILVER, Nitrate, cryst, oz	90	1 00
Fused, oz	1 00	1 10
SODIUM, Acetate, lb	30	35
Bicarbonate, kgs., lb	2 75	3 00
Bromide, lb	63	65
Carbonate, lb	3	6
Hypophosphite, oz	10	12
Hyposulphite, lb	3	6
Iodide, oz	$ 40	$ 43
Salicylate, lb	1 75	1 80
Sulphate, lb	2	5
Sulphite, lb	8	10
SOMNAL, oz	85	00
SPIRIT NITRE, lb	35	65
STRONTIUM, Nitrate, lb	18	20
STRYCHNINE, crystals, oz	1 00	1 10
SULFONAL, oz	34	35
SULPHUR, Flowers of, lb	2½	4
Pure precipitated, lb	13	20
TARTAR EMETIC, lb	50	55
THYMOL (Thymic acid), oz	55	60
VERATRINE, oz	2 00	2 10
ZINC, Acetate, lb	70	75
Carbonate lb	25	30
Chloride, granular, oz	13	15
Iodide, oz	60	65
Oxide, lb	13	60
Sulphate, lb	9	11
Valerianate, oz	25	30
ESSENTIAL OILS.		
OIL, Almond, bitter, oz	75	80
Sweet, lb	50	60
Amber, crude, lb	40	45
Rec't, lb	60	65
Anise, lb	3 00	3 25
Bay, oz	50	60
Bergamot, lb	3 75	4 00
Cade, lb	90	1 00
Cajuput, lb	1 60	1 70
Capsicum, oz	60	65
Caraway, lb	2 75	3 00
Cassia, lb	1 75	1 80
Cedar	55	85
Cinnamon, Ceylon, oz	2 75	3 00
Citronelle, lb	80	85
Clove, lb	1 00	1 10
Copaiba, lb	1 75	2 00
Croton, lb	1 50	1 75
Cubeb, lb	3 00	3 25
Cumin, lb	5 50	6 00
Erigeron, oz	20	25
Eucalyptus, lb	1 50	1 75
Fennel, lb	1 60	1 75
Geranium, oz	$1 75	$1 80
Rose, lb	3 20	3 50
Juniper berries (English), lb	4 50	5 00
Wood, lb	70	75
Lavender, Chiris. Fleur, lb	3 00	3 50
Garden, lb	1 50	1 75
Lemon, lb	2 00	2 10
Lemongrass, lb	1 50	1 60
Mustard, Essential, oz	60	65
Neroli, oz	4 25	4 50
Orange, lb	2 75	3 00
Sweet, lb	2 75	3 00
Origanum, lb	65	70
Patchouli, oz	80	85
Pennyroyal, lb	2 50	2 75
Peppermint, lb	4 25	4 50
Pimento, lb	2 60	2 75
Rhodium, oz	80	85
Rose, oz	7 50	11 00
Rosemary, lb	70	75
Rue, oz	25	30
Sandalwood, lb	5 50	7 50
Sassafras, lb	75	80
Savin, lb	1 60	1 75
Spearmint, lb	3 75	4 00
Spruce, lb	65	70
Tansy, lb	4 25	4 50
Thyme, white, lb	1 80	1 90
Wintergreen, lb	2 75	3 00
Wormseed, lb	3 50	3 75
Wormwood, lb	4 25	4 50
FIXED OILS.		
CASTOR, lb	9	11
COD LIVER, N.F., gal	1 15	1 25
Norwegian, gal	1 50	1 60
COTTONSEED, gal	1 10	1 20
LARD, gal	90	1 00
LINSEED, boiled, gal	60	63
Raw, gal	58	61
NEATSFOOT, gal	1 00	1 10
OLIVE, gal	1 30	1 35
Salad, gal	2 25	2 40
PALM, lb	12	13
SPERM, gal	1 75	1 80
TURPENTINE, gal	60	65

The Standard Brands.
MILLIONS OF EACH BRAND Sold Annually.
'Cable Extra' 'El Padre' 'Mungo' and 'Madre e'Hijo'
S. DAVIS & SONS MONTREAL, P.Q.

"DERBY PLUG," 5 and 10 cts., "THE SMOKERS' IDEAL," "DERBY," "ATHLETE" CIGARETTES, ARE THE BEST.

D. RITCHIE & CO., - - Montreal.

Drug Reports.

Canada.

As is usual at this season of the year all heavy goods stiffen in price, and will be firm until summer freight rates come into force. Business keeps fairly active, and is, if anything, ahead of last year. The signs of the times indicate we are on the eve of better times.

Norway cod liver oil has advanced in price in Europe almost double, and will likely be much higher. It is worth to-day $2 per gallon, and, as the prices are based on the catch made from January to March, it will be no lower for a year. The catch of fish is small, and the livers of those caught contain little oil.

Cocaine is 10 per cent. higher, and the outlook indicates a further advance.

Gum tragacanths are all 25 per cent. higher. Gum acacias may sympathize with them.

Salicylic acid and salicylate soda easier in price.

Sulphonal is 25 per cent. higher; very little in stock in this market at present. It is reported, in the future, sulfonal and phenacetine can only be had in ounces.

Bromides are all higher, principally ammon bromide, soda bromide, etc.

Aloes, all kinds, are dearer on account of small production.

Antitoxine, a new antipyretic, is worth $1.50 per ounce, in one ounce boxes.

Laviolette's Syrup of Turpentine has been reduced to $1.60 per dozen, or $18 per gross.

England.

London, Jan. 26th, 1895.

The drug and chemical markets have been very dull, and transactions for the most part have been of a jobbing character. A concerted attempt has been made to abolish the old London terms, which included a draft or trell of one or two pounds extra allowed by the seller to the buyer on each cwt.

Sulphonal has advanced, owing to the amalgamation of the two principal manufacturers. Salicine is also dearer, the reason being a short crop of the willow bark. Gum Kino is gradually reaching famine price, as no more appears coming forward. The export season is responsible for the rise in value of copper sulphate.

Quinine and opium are quiet, and there are no alterations to note. Camphor is lower, and ergot easier. Jalap, senega, and ipecacuanha, steady, with a firmer tendency. Cascarilla bark realized extreme prices at the auctions this week, but other drugs were, for the most part, unaltered in value.

ANTITETRAIZIN is the name given in Italy to an alleged quinine derivative, and recommended by Zambeletti, of Milan, as an effective analgesic in rheumatism and kindred ailments. The dose is 0.75 to 1.5 per day.

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TORONTO

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VII. TORONTO, MARCH, 1895. No. 3

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CONTENTS.

Uniform Legislation.
The Pharmacopœia.
To Correspondents.
Manual of Organic Materia Medica and Pharmacognosy.
TRADE NOTES.
British Columbia Notes.
Pharmaceutical Association of the Province of Quebec.
British Columbia Pharmacy Legislation.
Pharmacy in England.
Rules for the Guidance of Dispensing Clerks.
The Future City Druggist.
Crystallization of Syrups, and the Remedy.
Phosphorus Pills.
Perfumed Moth Camphor.
An Automatic Process for Aqua Chloroformi.
Acetylene as an Illuminant.
Red, Yellow, and Black.
The Opium Trade of Asia Minor.
Sodium Carbonate.
Test for Acetanilid in Phenacetine.
An Act to further Amend the B. C. Pharmacy Act.
EDITORIAL.—Death of Mr. S. M. Burroughs. Justice to a Manufacturing House.—The Ownership of the Prescription.
The Bacteriological Examination of Water.
Points on the making of Pills.
Estimation of Spirit of Nitroglycerin.
Simple Tests for Common Drugs.
The Stability of Sublimate Solutions.
Wintergreen Oil.
Bismuth Oxysalicylate.
Peyotline, a new Alkaloid.
FORMULARY.
A New Ointment Base.
Purification of Ether.
PHOTOGRAPHIC NOTES.
Safeguards against Deterioration of Stock.
BUSINESS NOTICES.
BOOKS AND MAGAZINES.
The American Pharmaceutical Association.
Reaction of Pure Ether.
DRUG REPORTS.

The highest mortality in European cities per 1,000 for August is St. Petersburg, 62; and the lowest, Swansea, 10.

Uniform Legislation.

Is it not high time that steps were being taken by our governing pharmaceutical bodies to form an association whose power shall not be confined to the limits of a single province? Here we have in Canada seven distinct pharmaceutical associations, each with powers conferred on them by the legislatures of their respective provinces, still as distinct from each other as though they were not part and parcel of one country. Each legislates for itself, has its own poison schedule for guidance of pharmacists, its own regulations as to who may or may not assume to themselves the title of "chemist" or "druggist," and each one determines what qualification is necessary to earn such a title. And all this in provinces where, we might say, an imaginary boundary line marks the only distinction between several of them. Such a thing should not be, and there is no reason for the present state of affairs, which is, we contend, detrimental to the interests of pharmacy in this Dominion. If we want to conserve any rights that we at present possess, or to obtain any legislation which recommends itself as desirable for the well-being of the profession, it must all be done by united action. There are too many influences at work in some of our local legislatures to make it desirable that matters so important to the pharmacist, and of such vital interest to the public, should be confined to these local limits, and it is through combined action on the part of pharmacists of the Dominion, legislating in the House of Commons, that interests such as we represent can be legislated upon for the benefit of the whole of Canada.

This is a matter that cannot be acted on too quickly. The course of events shows most unmistakably that unless we, as pharmacists of the Dominion, act promptly, and secure Dominion legislation, forming an association, to which powers may be granted to regulate pharmacy throughout all Canada, what rights we even now may have are in danger of being tampered with, and, once lost, when may we hope to regain them? We would urge promptness in taking steps towards the formation of a Dominion Pharmaceutical Association, and in combining the interest of pharmacists in all the provinces for the general good.

The Pharmacopœia.

Suggestions as to alterations and additions to be made to the proposed Imperial Pharmacopœia are being made through the English medical and pharmaceutical press; and although the interest taken seems to be rather of a lukewarm character, yet it appears to be taken for granted that the work will partake somewhat of the "Imperial" character suggested.

The various pharmaceutical bodies of this country, not having been officially asked to formulate any suggestions, nor, in fact, to take any part, have very wisely concluded not to interfere in any way, having no desire evidently to push themselves in where not asked, no doubt feeling the discourtesy shown them by the committee in England who have the matter in charge. Under any circumstances, we believe the better way would be to accept whatever may be the outcome of the deliberations of the committee, and recognize as the official pharmacopœia of the Dominion the volume so prepared; then, if deemed advisable in the interests of Canadian pharmacy, publish an addendum, comprising such things as are considered desirable to incorporate in a work which will be the official text-book for our schools and our guidance in the laboratory.

A FELLOWSHIP, to be known as the "Stearns Fellowship of Pharmaceutical Chemistry and Pharmacology," has been established at the University of Ann Arbor, Michigan, through the liberality of Frederick Stearns & Co., of Detroit. During the coming year the work of the

fortunate candidate will be under the immediate supervision of the dean of the department, Dr. A. B. Prescott. Only a short time ago the Stearns art collection, comprising hundreds of beautiful water-color reproductions of Japanese fishes, executed at great expense by a famous Japanese artist, was given to the university to be placed in the general museum.

To Correspondents.

We have received several anonymous comunications asking for formulæ, etc. To these and all correspondents we would repeat : *The name must in all cases accompany the communication, although it will not be published if so desired.*

Manual of Organic Materia Medica and Pharmacognosy.

An introduction to the study of the vegetable kingdom and the vegetable and animal drugs ; comprising the botanical and physical characteristics, source, constituents, and pharmacopœial preparations, with chapters on synthetic organic remedies, insects injurious to drugs, and pharmacal botany. By Lucius E. Sayre, Dean of the School of Pharmacy, Professor of Materia Medica and Pharmacy in the University of Kansas. 555 pages. 543 illustrations. Cloth, $4.50. Philadelphia : P. Blakiston & Co.

The absence of a good text-book in the English language treating of the subjects Materia Medica and Pharmacognosy together has been increasingly felt each year during the past decade, and of late many teachers of these branches have viewed the idea of combining the subjects in a single text-book as being impracticable, yet Prof. Sayre has in the work before us solved the secret of combination in a very ingenious and satisfactory manner, and pharmaceutical educators have reason to congratulate him upon the successful conclusion of his efforts, in having furnished a new and prominent American text-book, and one which will be consulted for reference by both the pharmaceutical and medical professions.

The present edition, like all first editions, presents many glaring defects, which will undoubtedly be dealt with in subsequent editions, yet the scope, arrangement, and the judicious selection of subject-matter is indeed above comment. The author has divided the work into two parts, and included therewith three appendices.

Part I. treats on Pharmaceutical Botany, and Part II. on Materia and Pharmacognosy.

We cannot refrain from making the statement that in the 82 pages devoted to Part I. the author has scarcely grasped the needs of the pharmaceutical student in this direction, nor has he adjusted his instruction to the accomplishment of the object desired. Though the application of botanical knowledge to the practice of pharmacy is limited, it does not follow that writers are justified in permitting their teachings to be superficial and indefinite. The curtailment of botanical instruction to the pharmaceutical student should be only as to the amount of the field covered, but the needed portions should be taught and illustrated fully, clearly, and with a simplicity of style all the more marked because the student is deprived of the more enlightening effect of those portions which are here necessarily omitted.

The portion of the book referred to is a mere series of definitions, many of them greatly abbreviated and vague; hence Part I. is mainly synoptical, and can therefore only serve as a guide to the teacher or student previously instructed in structural botany. A little more care should have been observed in the arrangement and naming of the illustrations ; thus, Fig. 20 (see Page 28) is not the Pitcher of *Nepenthes distillaoria*, as stated ; it is *Sarracenia purpurea*.

In Part II. we meet the ingenious and practicable treatment of Materia Medica and Pharmacognosy.

The drugs are arranged, first, according to their most prominent physical characters, but we doubt if the method adopted will prove as efficient as that used in Maisch's work, owing to indefinite characterization by reference to taste only in the headings.

The second method of arrangement of this portion of the work is according to botanical relationship, the only satisfactory method of teaching the subject scientifically and practicably to the pharmaceutical or medical student. Here the drugs are taken up separately, after a brief description of the characteristics of the natural order, and a synopsis of the drugs belonging to the particular order. In treating of the drugs separately the official name (according to the U.S.P.) is presented with synonyms in English and German, then follow, in order, the definition botanical characteristics, sources, related and similar articles, description of drug, important constituents, action and uses, and a summary of official preparations, with strength and doses. There is generally included a cut of the plant and of the drug, gross and structural, thereby aiding the student greatly in familiarizing himself with the pharmacogostical characteristics. The animal drugs are similarly treated under their several zoological orders.

The careful student should note the following misleading statements, errors, and omissions which have met the writer's eye in a hasty examination of this part of the book :

Page 138—Omission, Habit of Podophyllum, United States.

Page 149—The statement is made that *sinalbin* is, by the action of the ferment *myrosin* and water, converted into volatile oil, glucose, etc., which can scarcely be considered correct, as the volatile oil of mustard cannot be prepared from the constituents of white mustard.

By the above mentioned reaction the glucoside *sinalbin*, $C_{30}H_{44}N_2S_2O_{16}$, of white mustard, yields *acrinyl sulphocyanate*, C_7H_7CNSO (which is not the volatile oil of mustard); also sinapin bisulphate, $C_{16}H_{23}CNO_5H_2SO_4$, and glucose, $C_6H_{12}O_6$. Volatile oil of mustard is obtainable only from *Sinapis nigra*, which contains *sinigrin* (a potassium glucosidal salt, $KC_{10}H_{18}NS_2O_{10}$), and which, under the influence of the ferment myrosin and water, becomes *allyl sulphocyanide* or *volatile oil of mustard*, C_3H_5CNS, glucose, $C_6H_{12}O_6$, and potassium acid sulphate, $KHSO_4$.

Page 182—Strength of spir. aurantii compositus should be 5 p.c. ; under oil of Bergamot, 8th line, read potassium hydrate for potassium.

Page 194—Read anacardieæ for anacardiaceæ.

Page 210—Last line read 20 p.c. for 30 p.c.

Page 214—Dose of copaiba should be ¼ to 1 drachm, not 5 to 10 grs.

Page 221—Strength of aq. amygdalæ amaræ should be $\frac{1}{10}$ p.c., not 1 p.c.

Page 231—Read hamamelaceæ for hamamelideæ.

Page 250—Strength and doses of preparations of oil of anise omitted.

Page 254—The statement that oil coriander "is one of the most stable of the volatile oils," etc., is incorrect; it develops a terebinthinate odor.

Page 266—Dose of ipecac omitted ; expectorant, 3 to 8 grs. ; emetic, 15 to 60 grs.

Page 267—Read 2.5 p.c. quinine for 25 p.c., 5th line.

Page 297—Ol. gaultheriæ, composition, dose, and preparations omitted.

Page 316—Read hydrophyllaceæ for hydrophylleæ.

Page 339—Doses of all drugs on this page omitted.

Page 347—Read polygonaceæ for polygoneæ.

Page 349—Dose of rheum omitted. Tonic ½-1 gr., cathartic 20 to 30 grs.

Page 359—Acetum opii omitted.

Page 363—Oleum cinnamomi, preparations : Acid. sulph. aromat. omitted.

Page 385—Extract juglandis omitted.

Page 395—Preparations of ol. juniperi omitted.

Page 441—Read *acid* for *alkaline*.

In "Appendix A," the author gives an important contribution on "Insects injurious to drugs," while "B" treats on organic remedies formed by synthesis. The latter is decidedly out of place, and might have been omitted entirely without detracting in the least from the merits of the book.

"Appendix C," "Pharmacal Botany," is treated of in too superficial a manner to be found of much value. An exhaustive index concludes the work.

C. F. H.

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Trade Notes.

P. F. Maddock is opening a new drug store in Guelph, Ont.

There is said to be a good opening for a doctor at Hilton, Man.

Dr. Arthur will shortly open a new drug store at Rossland, B.C

W. T. Junkin, druggist, Fenelon Falls, Ont., has made an assignment.

L. Bentley has purchased the drug stock of the estate of F. Butler, Toronto, Ont.

Charles E. Hooper, the oldest druggist in Toronto, Ont., died last month, aged 63 years.

S. A. Drake, of the Kasl > Drug Co., is about opening a branch store at Three Forks, B.C.

The drug store of G. W. McLaren, Morden, Man., was destroyed by fire last month.

The drug stock of the insolvent estate of James & Co., St. Thomas, Ont., was sold on the 4th inst.

Cochrane & Munn, druggists, Victoria, B.C., are dissolving partnership. John Cochrane will continue alone.

The Hearle Manufacturing Company, toilet soap makers, Montreal, Que., have assigned, with liabilities of $35,000.

A. S. Hopkins, Yonge street, Toronto (H. A. Knowles' old stand), has assigned. We understand the business is in the market.

F. H. Yapp, Hamilton, Ont., has sold his James street north store to Mr. Arthur Ross, who has been assistant with J. W. Spackman for some time.

P. D. Whyte, formerly with W. E. Saunders & Co, of London, Ont., was amongst the successful candidates at the recent pharmacy examinations at Chicago.

Private advices from Prince Edward Island report business very dull—in fact, more so than for many years past, owing principally to the very heavy fall of snow, which completely blocked traffic.

The Sydenham Glass Company (Ltd.), with factory at Wallaceburg, Ont., will begin operations in the course of a week or ten days. They intend manufacturing a full line of green prescription ware, fruit jars, etc.

Mr. T. J. McIntyre, of The Lyman Bros. & Co. (Ltd.), Toronto, has been laid up for the past two weeks with an abscess in his head. We are glad to say latest reports are that he is now slowly recovering.

Robt. T. Kyle, a graduate and gold medalist of the O.C.P., has just passed the examination held by the Minnesota Board of Pharmacy, at Minneapolis, where he obtained the highest number of marks secured by any candidate, and captured as high a standing as was ever taken before the board in that state.

Mr. John Henderson, general manager of The Lyman Bros. & Co. (Ltd.), Toronto, met with a nasty accident on Monday evening, February 25th. In stepping from a street car he burst a blood vessel in the calf of his leg. He has been confined to the house for a week, but hopes to be about in a few days.

Robert R. Martin, at one time in the retail drug business in Toronto, Ont., and subsequently manager of the New York house of Sharpe & Dohme, and who was appointed a little over a year ago to manage the London (Eng.) house of Oppenheimer & Co., manufacturing chemists, has been obliged, on account of his health, to seek a warmer climate. He will, in future, represent his firm in South Africa, making his headquarters at Cape Town.

Dr. Frank Langiliere, of the National Pharmacy, Montreal, Que., has just returned from a trip to Baltimore. He came back *via* Boston, and left with James W. Tufts an order for soda fountains, one for cold soda and one for hot. The former is a magnificent apparatus, composed of white and gold tiles, which were made especially for Mr. Tufts in Bavaria, and is the only one of its kind on this side of the ocean. The latter is also in white and gold, and the tile in this, too, was made in Germany on Mr. Tufts' special order, and is an exclusive design.

British Columbia Notes.

Sufficient interest is probably taken in the doings of druggists in this province to warrant the printing of the amendments to the Pharmacy Act, which passed the Local House, February 11th. There can be no doubt now that the B.C.P.A. mean business, and that they intend to elevate pharmacy. It was claimed, and with truth, that the old Act was practically unworkable, and hence all energy was strained to remedy the defect. Much credit is due the M.PP. (H. D. Helmcken, Q.C.) who kindly took charge of the bill, and also to the committee, Messrs. Henderson, Cochrane, and Schotbolt, who laid the question very clearly before each individual member.

The School of Mines referred to will be opened up early in June of the present year.

The council of the B.C.P.A. will meet, as far as is known at present, on Thursday, March 14th. This will be a very important meeting, as the by-laws of the association will need some alteration in order to reconcile them with the Act as now amended.

It is reported that the firm of Cochrane & Munn, of Victoria, will likely dissolve, the business being conducted in future by Mr. John Cochrane, an O.C.P. graduate.

Langley & Co., of Victoria, have decided to extend their wholesale business to the mainland, and have entrusted their Mr. J. A. Teporten with the management of the branch to be established on Carrall street, Vancouver. Mr. White has been promoted to drummer for the firm in place of Mr. Teporten, and Mr. Martin, late of Winnipeg, will take the position in the laboratory vacated by Mr. White.

Pharmaceutical Association of the Province of Quebec.

Notice to Students.

The semi-annual examinations for major and minor candidates will commence on Tuesday, April 16th, 1895, at 9 a.m., and will be held in the College of Pharmacy, 595 Lagauchetiere Street, Montreal. Candidates must file their applications, duly certified, with the Registrar, on or before April 6th. Printed regulations and form of application must be obtained from the Registrar, and must be duly signed by the applicant.

Candidates who have failed more than once in their examinations will be required to pay the full examination fee.

No applications for examination will be received after April 6th.

E. MUIR,
Secretary-Registrar.

595 Lagauchetiere Street,
Montreal, March 5th, 1895.

At a meeting of the council of the Pharmaceutical Association of the Province of Quebec, held on March 5, the following resolution was unanimously passed, namely:

"That this council having heard with deep regret of the death of Mrs. Paul Mathie, Quebec, wife of our esteemed and honored ex-vice-president, ex-examiner and member of the council, desire to place on record our sympathy and condolence, in this the great bereavement of our confrère, and that the secretary be requested to send a copy of this resolution to Mr. Mathie and the press."

British Columbia Pharmacy Legislation.

In another portion of this month's issue we give the amendments to the British Columbia Pharmacy Act as they passed their final reading in the Legislature. Some of these clauses are very important, and have a distinctive bearing on the needs of the pharmacists in that province. One of the clauses provides that any persons approved of by the examiners, who have obtained diplomas from the Pharmaceutical Society of Great Britain, or certificates from any pharmaceutical society in Canada, whose standards and requirements are equal to those of the British Columbia Association, may be registered in British Columbia without further examination.

Further regulation has also been made as to the sale of poisons, and the right is granted to medical men to associate themselves in business with druggists.

If you neglect your business, you will soon have no business to neglect.

When you get a good thing hang to it like a nigger preacher to a striped watermelon.

Pharmacy in England.

A Hitch in the Matter of the "Imperial" Pharmacopœia—The Epidemic of Influenza—Proprietary Remedies and their Names—Exposure of a Nostrum—Trouble in the Research Laboratory of the Pharmaceutical Society—Death of S. M. Burroughs.

(From Our Own Correspondent.)

Already there are indications of a revolt amongst pharmacists against the methods adopted by the General Medical Council to secure a revision of the pharmacopœia. The appointment of Professor Attfield as editor is postponed, and every one anticipates that the upshot will be the association of one or two therapeutists with Professor Attfield. At the Edinburgh meeting of the Pharmaceutical Society, the qualification of Professor Attfield to judge botanical questions was openly challenged, and it was plainly stated that pharmacists do all the work, whilst others reap the reward. So far, the only attempt to make a start has been the usual complimentary letter from Sir Richard Quain to the President of the Pharmaceutical Society, inviting the assistance of the Council and members, and pharmacists generally, in the production of a new pharmacopœia. The council evidently did not regard the matter very seriously, as they merely nominated the same committee again as assisted in the production of the Addendum, 1890. It is true they actually invited one new pharmacist, Mr. P. W. Squire, to join them, but, of course, Mr. Squire would not consent. I have repeatedly pointed out in these columns that if the work of revision is to be undertaken in earnest, a far larger committee than the half-dozen men above mentioned will be absolutely necessary. As it is, most of the members of this committee do little or no actual work, but relegate it to their assistants or the managers of their laboratories. In the production of the miserably deficient addendum, this committee took nearly eighteen months, and groaned over the work. There is some tendency in medical ranks at a concerted attempt to introduce concise therapeutic notes about each drug, or its preparation, although Dr. Lauder Brunton's scheme to make it a prescriber's companion has been generally derided. Incompatible and solubilities might well be stated, but hints upon the proper combinations for a prescription are surely out of place.

Influenza, or la grippe, has begun to pay us its annual visit, somewhat delayed, but undoubtedly rendered more severe by the prolonged frost. Already the death rate has doubled, jumping in three weeks from seventeen to thirty-five per thousand. There has been a steady rush for ammoniated tincture of quinine and other recognized remedies, but eucalyptus oil appears to have lost its value in the eyes of the majority of the public. As a general disinfectant and prophylactic, it was unquestionably overrated during the 1890 scare, but in the first stages of the epidemic, when the coryza is severe and the fauces swollen and painful, inhalations of eucalyptus oil with steam are very useful, and afford rapid relief. Doctors and chemists have been very busy ever since the frost broke up, and the development of coughs and colds by the public has been wonderful. Soon we shall have the convalescent period with its cod liver oil emulsion, syrup of the hypophosphites, and other recognized remedies.

Why do manufacturers of proprietary preparations so often saddle their specialties with uncouth and unpronounceable names? It was bad business for the proprietors to cling to the title, "Gérandel's Pastilles," as it is not a pastille at all, but a compressed pellet or tablet. The way the public, in obedience to the extensive advertising, have tried to grasp M. Gérandel's name is most amusing. Now a new soap has been launched, with the highly euphonious title of "Myrospermum." One can easily imagine Mary Jane coming into the shop for a cake of Myra's-journal soap! If proprietors would only grasp the elementary fact, which would be forced on their notice a dozen times a day if they were behind the retail counter, that they often suffer from the absolute inability of the public to grasp and remember their extraordinary titles, they would be more careful in future. Be distinctive, by all means, but do not let the word be long, or capable of about two dozen different methods of pronunciation.

Writing about proprietary preparations reminds me very forcibly that they have their Nemesis. Occasionally it is a trade journal that offers a formula which is stated to produce exactly the same article as that on which a proprietor may have spent much money and time before completion. Against that form of Nemesis, I have not much to say except that it is hardly an honorable proceeding. But we have in London a journal, called *Science Siftings*, that has thrown down its gauntlet against quackery. It assisted in the exposé which took place a couple of years ago of Harness and his confrères, who were selling so-called electric belts ingeniously contrived so that even the smallest quantity of electricity could *not* pass to the wearer. This journal has turned its attention to proprietary preparations, and this week announces an exposure of "Koko" for the hair. This is a comparatively young proprietary, but has been extensively boomed, and, during a discussion at the Chemical Society on the subject of analytical reports, it came in for some criticism. On that occasion the report of a well-known analyst was quoted, and from the carefully-guarded language in which the report was framed it was stated that the preparation might consist of distilled water. Now we understand the reason for this, as *Science Siftings* finds the composition to be, glycerine 60.6 grains, borax 15.35 grains, in each six ounces. A small quantity of rose water is present to give a little odor, but the bulk of the preparation is water. There was an impression abroad that it contained pilocarpine, but, as *Science Siftings* points out, this alkaloid is exceedingly dear just now, so perhaps this accounts for its absence. There was the usual highfalutin reference to a tribe of Indians, the Coco-Maricopas, who had discovered this extraordinary remedy, and who were never known to go bald, etc. It will be interesting to learn the sequel. Harness attempted to put the law in motion on the question of libel, but was unsuccessful. We might almost safely presume that Koko is doomed, and those who have large advertisement contracts running had better gather in the shekels.

What looks like a concerted attack by the trade journals here upon the Research Laboratory of the Pharmaceutical Society has taken place this week. Both journals attack the director, Professor Dunstan, rather viciously, and directly charge him with committing the unpardonable sin of *suppressio veri*. There is also an artful alliteration concerning priority prigging. But Professor Dunstan is perfectly capable of taking care of himself, and if he condescends to notice the attacks, and it is to be hoped he will, as they call for answers, will probably hit out straight. His reply to a criticism of Mr. P. W. Squire on the melting point of aconitine was a masterpiece, and his sweet suggestion that, as Mr. Squire had no acquaintance with elementary research work, his blunders were therefore pardonable, was specially delightful to those who know the pompous manner of Mr. Squire. Someway or other, however, there appears a hitch in the work of the laboratory, as since March of last year we have had no communication on the aconite investigation.

The death of S. M. Burroughs, of the enterprising firm of Burroughs, Wellcome & Co., is a severe loss for pharmacy in this country. His energetic support and aid was ever ready for all schemes intended to benefit druggists and their assistants. His philanthropy was also well known, and it it is only a short time ago that he gave $5,000 to found a cottage hospital in the little town of Dartford, where the firm's works are established. The progress of the firm is a remarkable illustration af the value of persistent and large advertising. So much success have they achieved that nine medical men out of ten use the registered trade mark of the firm, "tabloid," in preference to the English word, tablet, when they want to describe compressed goods. The firm seem to have been perpetually hankering after something new, and it is well known that they will go to any expense and trouble in perfecting the ideas of medical men. But as to their exact value to pharmacists as a class, there is no mistaking the fact that they have done more mischief than a dozen ordinary proprietary manufacturers. They calmly suggest to doctors that they should prescribe their compressed tabloids, and the chemist will only have to soak off the ordinary label and fix on one with the proper dose and the thing is done. This is reducing the art of dispensing to its lowest depths.

We think we can

Save you Money

when you want any of the following staples :

NORWAY COD LIVER OIL.
CARBOLIC ACID OPT.
GUM ACACIA.
CAMPHOR.
EPSOM SALTS.
SAL SODA.
FLOUR SULPHUR.

Please get our quotations before ordering.

ARCHDALE WILSON & CO.

Wholesale Chemists and Druggists,

HAMILTON, - - - - ONTARIO.

FREDERICK STEARNS & CO.'S

PREPARATIONS OF KOLA

Preparations of the Fresh (Undried) Nut.

Kolavin A delicious wine, each tablespoonful representing 30 grains of the fresh (undried) Kola nuts. In full pints, $8.00 per dozen.

Kolabon Elegant confections or bonbons, each representing 10 grains of fresh (undried) Kola. $4.00 per dozen boxes.

Fluid Kola A concentrated liquid extract, each minim representing one grain of fresh (undried) Kola. Per pint, $3.50.

Preparations of the Dried Nut.

Stearn's Kola Cordial (The Original.)

A delicious cordial, each teaspoonful representing 15 grains of dried Kola. In 12 oz. bottles at $8.00 per dozen.

Compressed Tablets of Kola

Compressed Tablets of dried Kola, 10 grains each. Per 100, 25 cents.

Fluid Extract of Kola

Each minim representing one grain of dried Kola. Per pint, $3.50.

Our Claims on Kola.

1. We introduced Kola commercially in America in 1881 (see New Idea, April, 1881).

2. We introduced the first palatable preparation of Kola in the form of Stearns' Kola Cordial in 1893.

3. We originated the first and only preparation of fresh (undried) Kola in 1894, when Kolavin was introduced.

4. We to day are the only importers of fresh (undried) Kola from Africa.

5. We have done more scientific work on Kola than any other American house. (See our 80-page monograph issued last year, 1894.)

6. We have done more by liberal advertising in the pharmaceutical and medical press to call Kola to the attention of these professions than all other houses combined.

THEREFORE we consider ourselves headquarters for Kola and its preparations, and believe the professions will endorse our position.

Frederick Stearns & Co., Manufacturing Pharmacists,

(The introducers of Kola in America)

Windsor, Ont, London, Eng. New York. DETROIT, MICHIGAN.

Buttermilk

- Toilet Soap.

¼ size facsimile of package.

Over 2,000,000 Cakes Sold in 1892

The Best Selling Toilet Soap in the World.

Excels any 25-cent Soap on the Market. Nets the Retailer a good profit.

When sold at a very popular price it will not remain on your counters. Try a sample lot.

The quality of this soap is GUARANTEED. See that the name "BUTTERMILK" is printed as above "in green bronze," and the name "Cosmo Buttermilk Soap Company, Chicago," in diamond on end of package. Beware of imitations.

COSMO BUTTERMILK SOAP CO.,
165 Wabash Ave., CHICAGO.
F.W.HUDSON & CO., TORONTO
Sole Agents for Canada.

KENNEDY'S
MAGIC CATARRH SNUFF
(REGISTERED)

A POSITIVE CURE FOR

CATARRH
COLD IN THE HEAD
CATARRHAL DEAFNESS
HEADACHE, Etc.

It is reliable, safe, and sure, giving instant relief in the most distressing cases.

PRICE, 25 CENTS.

Wholesale of **Kerry, Watson & Co., Montreal. Lyman, Knox & Co., Montreal and Toronto.**
And all leading Druggists.

BURLAND'S
OLD DOMINION CRESCENT BRAND
CINNAMON PILLS
THE ONLY GENUINE RELIEF FOR LADIES.

ASK your Druggist for "Burland's Old Dominion Crescent Brand **Cinnamon Pills.**" Shallow rectangular metallic boxes, sealed with crescent. Absolutely safe and reliable. Refuse all spurious and harmful imitations. Upon receipt of six cents in stamps we will reply by return mail, giving full particulars in plain envelope. Address

BURLAND MEDICAL CO.,
Morse Building, NEW YORK CITY.
Please mention this paper.

NOTICE.

We have just been appointed Wholesale Agents for the Dominion of Canada for the sale of

Payson's Indelible Ink.

All Orders will have our prompt attention.

The London Drug Co.
LONDON, ONT.

KERRY, WATSON & CO., - MONTREAL.

PRI-MO LADIES' SYRINGE.
WE ISSUE A PAMPHLET THAT WILL INTEREST YOU.
IT IS USED WITHOUT BED PAN. PERFECTLY ASEPTIC. ANATOMICALLY CORRECT. NOT A WEDGE.
E.J. HUSSEY & CO. 80 John St. New York.
INTRODUCERS NOVELTIES OF MERIT.

PER DOZ.
No. 1. Nozzle and Shield, with Outlet Tubing . . $30
No. 2. " " Complete 2-qt. Fountain, 48

DISCOUNT TO TRADE ON APPLICATION.
BEST SYRINGE ON THE MARKET. SOLD BY ALL JOBBERS.

LYMAN, KNOX & CO.
Montreal and Toronto
Agents for Canada.

DICK'S
UNIVERSAL MEDICINES
FOR HORSES AND CATTLE

They always give entire satisfaction, and there are no medicines in the market that can compare with them.
Thrifty farmers, stockowners and carters all over the country are, by actual results, realizing that they cannot afford to be without a supply of

Dick's Blood Purifier Price 50c.
Dick's Blister, for Curbs, Spavins, Swellings, etc. Price 50c.
Dick's Liniment for Cuts, Sprains, Bruises, etc. Price 25c.
Dick's Ointment. Price 25c.

Circulars and advertising cards furnished.

DICK & CO., P.O.Box 482, MONTREAL.

Royal Oil Co.
TORONTO

Offer the following special lines to the Drug Trade:

XX Petrolatum, in 50 lb. tubs...	7c. per lb.
" " 25 " ...	7½c. "
" in 1 lb. lacquered tins (24 tins to case)....	$3.00 per case.
White " in 25 or 50 lb. tubs.	18c. per lb.
Benzine, 5 gallon tins	20c. per gal.
Extra Gasoline, 5 gallon tins....	25c. per gal.
Sewing Machine Oil, in 5 gallon tins.....	80c. per gal.
Sewing Machine Oil, in 2 oz. bottles.....	$6 00 per gross.
Cycle Oil, in 2 oz. bottles	$6.00 "
Royal Hoof Ointment, in 1 lb. tins (24 tins to case)....	$3.50 per case.
Raw Linseed Oil, by the barrel.	54c. per gal.
" " " in 5 gal. tins.	57c. "
Boiled " " by the barrel.	57c. "
" " " in 5 gal. tins.	60c. "
Pure Neatsfoot Oil in 5 gal. tins.	90c. "
Pure Sperm Oil, in 5 gal. tins..	$2.00 "
Castor Oil, in case lots.....	6c. per lb.
" " in 5 gal. tins	6½c. "
Sperm Candles, 36 lbs. to case..	10½c. "
Paraffine Candles " ..	11½c. "
Pure Spirits Turpentine, by the barrel.....	45c. per gal
Pure Spirits Turpentine, in 5 gal. tins.....	50c. "
Wood Jackets, 5 gal. cans.....	35c. each.

Terms:
30 Days. No Discount.

To buyers of large quantities we shall be pleased to quote special prices.

Trusting to receive your esteemed orders,

Yours very truly,

ROYAL OIL COMPANY,
TORONTO.
GEO. ANDERSON, Manager.

We are the largest manufacturers of Canadian Coal Oil, and the largest importers of American Coal Oil in Canada.

Burroughs would have lived for many more years but for his restless nature. You could never take up a trade journal without learning he was in South Europe, or in Africa, or Asia, or anywhere—but at home. Always on business, with a keen eye to business, he lived mainly for business, and has paid the penalty. Still he was much respected, and many to-day lament the early decease of a large-hearted man.

Rules for the Guidance of the Dispensing Clerk.

By T. W. Richardson.

Be clean and neat about your person and dress. A patient will not care to take medicine put up by a slovenly person, nor to be waited on by one. Do not be afraid of putting yourself about for the sake of obliging a customer. Have a smile and pleasant word for every one; a little kindness done may not mean much to you, but it may do much for you by securing you the good will of your customer.

In receiving a prescription, tell the customer the length of time it will take to prepare it. Enquire if they will wait or call again. If they will wait, politely request them to be seated, or, if they wish it delivered, have it delivered promptly, for although half an hour may not make much difference, yet the suffering patient may be inclined to complain at any delay.

Before commencing to dispense read the prescription carefully, and, if any explanation regarding it is needed, consult with the doctor, but without the patient's knowledge.

Scrupulousness, accuracy, neatness, and dispatch, as well as a thorough knowledge of his business, constitute the necessary requisites of a good dispenser.

There must be no substitution. Use only the best quality of drugs. You get a best-quality price, and you have a perfect right to furnish best quality goods to your customer. Be accurate, fix your mind on what you are doing, and give it your full attention. Be careful of your fraction of a grain—carelessness cannot be tolerated at all. Remember that the patient's health, and even life, is placed frequently in your care, and that carelessness, therefore, in dispensing amounts almost to criminality. Neatness is a great factor towards success. The majority of people dread taking medicine, and should they receive a bottle with the label on askew, and perhaps smeared with a dirty finger, the neck of the bottle sticky, and the cork in crooked, they would be apt to be disgusted. Despatch is very important, and in order that dispensing may be done quickly it is necessary to have everything handy. Have only on your dispensing shelves such things as are frequently used, and so arranged that the least movement will enable you to reach them.

A good arrangement is to have a deep dispensary, and along the back of the counter, and midway from either end, a compartment for the scales, with mortars and graduates on either hand.

Underneath the counter have drawers for paper for wrapping prescriptions, already cut, pill boxes, powder papers, pill tiles, pill machines, corks, etc., also compartments for bottles and ointment pots. Have your gas jet and sealing wax at one end of the dispensary, and your water supply as convenient as possible, for we all know what a necessary commodity "aqua pura" is, and how frequently it is brought into requisition in our "noble and beloved" profession.

In dispensing poisonous lotions or liniments, use a poison bottle, and make it a point of honor to affix a shake, lotion, or liniment label, whenever necessary.

Keep your counter clear and clean, and replace everything when through with it. Having prepared the medicine, take the prescription to the desk and date, number, price, and place any note which you may need for reference upon it. Having neatly wrapped and sealed your package, you are ready to hand it to your customer if waiting. If he is not waiting, write on wrapper the name of patient, designation of prescription, number of price, as follows:

John Thomson,
Lotion, 139540—35c.

The Future City Druggist.

Dear Mr. Editor,—Under the above heading I desire to send you my idea of what the city druggist of the future should be.

The city druggist of the future must be aspiring as to professional reputation. He must be well educated, and possess the Ph.M.B. degree in pharmacy. His professional abilities should be supported by sufficient means to sustain the eminence he should naturally enjoy. His assistants should, if not graduates, be at least matriculants of the university. His stock should be as varied as the wants of his customers, regardless of the profits wasted in maintaining it. He should never give any thought to such low-born institutions as departmental stores, which thrive on commercial rather than professional lines. In his dealings with the public he must impress them with the importance of his profession as a branch of the healing art, and discountenance, publicly at least, collusion with medical men for mutual benefit.

He will, of course, not from necessity, but as an evidence of his obliging nature, continue to afford the public the free use of his telephone, directory, and other mere adjuncts of his calling. Away from the public eye, he will obey patiently any demands made upon him by the medical profession. Being a professional man himself, he must feel it beneath his dignity to charge the doctor for such things as sponges, surgical dressings, etc., which his superior may require, and, even should members of the doctor's family see fit to make trifling demands in the drug sundry line, his sense of professional propriety will deter him from asking or seeking recompense. Above all things, he must never, in the slightest degree, encroach on the rights of the medical fraternity by compounding remedies for the minor ailments of humanity, and, should his customers seek a refilling of prescriptions without the authority of their medical adviser, it will be his duty firmly, but kindly, to refuse the same. Under no circumstances will he return the original prescription or give a copy, as it might inadvertently be dispensed as a new prescription by a confrère, and thus rob the author of the fee which is properly his due. His duty, at all times, will be to protect the medical profession, as far as lies in his power, from the many forms of plagiaristic empiricism which have proven a bane to it in the past, and, although his pocket may suffer somewhat in doing so, the high sense of dignified justice which should pervade him will be ample reward for his disinterested efforts.

Overtheleft.

Crystallization of Syrups, and the Remedy.

Carles (*Repertoire de Pharmacie*), in an article on the crystallization of syrups, states that it is his habit, as soon as he notes a tendency of a syrup to crystallize, to put it on the water-bath and heat it. The separated sugar is at once taken up, and remains in solution. Occasionally, he says, the crystallization will occur only on the bottom of the vessel, and is due to the fact that the latter is standing on some object colder than the surrounding atmosphere. This is especially the case in winter. All that is necessary in such cases is to reverse the jar or vessel, which, by equalizing the temperature, causes the crystals to be again taken up.—*National Druggist.*

Phosphorus Pills.

Yet another method for dispensing phosphorus in pills is suggested by M. Ledoux, of Liège, who heats anhydrous wool-fat, 4 gm., and phosphorus 6 cg., in a capsule, on a water-bath at a temperature about 45°, until the phosphorus is melted. The mixture is then stirred with a slightly warmed pestle until cool, after which powdered marsh-mallow, *q.s.* for 120 pills, is added. The finished pills should be rolled in powdered talc and preserved in the same, sheltered from the light.—*Journs. de pharm. de Liège, et d'Anvers.*—*Pharmaceutical Journal.*

Perfumed Moth Camphor.

Naphthalin-camphor, says the *Drogisten Zeitung*, now so popular as a moth-preventer, is prepared by melting together, on the water-bath, 2400 parts of naphthalin and 780 parts of camphor. The unpleasant, penetrating odor of the product may be masked and rendered even pleasant by adding to the product, while still fluid, 2 parts cumarin, 1 part nerolin, and 53½ parts of mirbane oil.

An Automatic Process for Aqua Chloroformi.

By William Elborne, B.A.,

Pharmacist at University College Hospital, Demonstrator of Materia Medica at University College.

The B.P. process for preparing aqua chloroformi is to put the chloroform and water into a two-pint stoppered bottle and shake them together until the chloroform is entirely dissolved in the water.

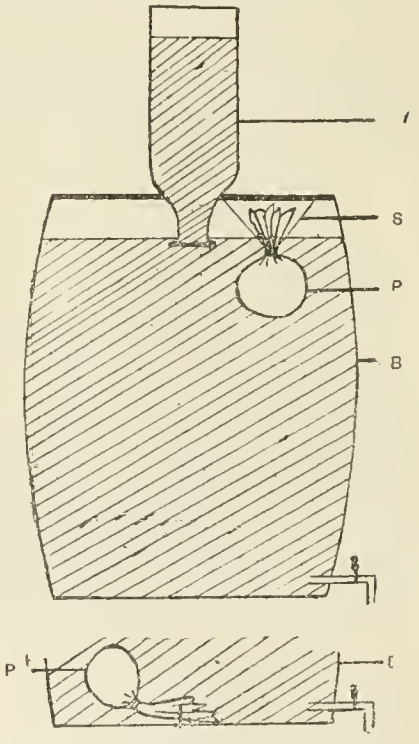
The U.S.P. process is to "add enough chloroform to a convenient quantity of distilled water, contained in a dark amber-colored bottle, to maintain a slight excess of the former, after the contents have been repeatedly and thoroughly agitated. When chloroform water is required for use, pour off the needed quantity of the solution, refill the bottle with distilled water and saturate it by thorough agitation, taking care that there be always an excess of chloroform present."

Now, the B.P. process for aqua camphoræ is one of automatic diffusion of a solid volatile substance into distilled water: "Enclose the camphor in a muslin bag, and attach this to a piece of glass, by means of which it may be kept at the bottom of the bottle containing the distilled water. Close the mouth of the bottle, macerate for at least two days, and then pour off the solution when it is required." In practice it is customary to keep a large excess of camphor in the bag, pouring off and replenishing with water until the whole of the camphor has disappeared — the operation extending possibly over months; this process, substituting stout parchment paper for the muslin bag, may be regarded as having suggested the following process:

In the sense of filtration, parchment paper is impervious to water, alcohol, chloroform, ether, and essential oils, but if such be enclosed in the parchment paper, and the latter suspended in a vessel of water, the enclosed liquids will, by osmosis, diffuse through the membrane into the water until, in the case of liquids freely miscible with each other, equilibrium within and without the membrane is established, or, if they be only sparingly soluble in water, until the latter becomes saturated: thus, if a fluid drachm of chloroform be enclosed in parchment paper and suspended in 25 ozs. of distilled water, in a closed vessel secluded from light, it is found to have quitted the membrane and saturated the water in eight days, and if a large excess of chloroform he used (say, two fluid ounces), retaining the same volume of water, saturation is effected in twenty-four hours.

The process, having been in use for some months, has given every satisfaction. In the accompanying diagrammatic representation of the method adopted, B is an earthenware 4 gallon barrel containing distilled water; P, a pint of chloroform tied up in a bag of stout parchment paper; S, the string passing round through the bung and spile-holes and supporting the bag; W, a dark amber-colored Winchester quart filled with water, inverted and standing in the bung-hole, acting as a replenisher and gauge. The whole being placed in position is allowed to remain intact for seven days, after which period it may be drawn from the tap as required for use. The Winchester, when empty, is to be refilled with distilled water and again placed in position, and the chloroform bag replenished at much longer intervals. A saturated aqueous solution of chloroform is stronger than the B.P. aqua chloroformi, three parts of the former being equivalent to four parts of the latter.

For other medicated waters in considerable requisition, such as aq. menth. pip., the process might prove of general application; but where the specific gravity of the essential oil is less than unity it would be requisite to load the flaps of the parchment with spare glass stoppers, in such a manner as to keep the bag at the bottom



of the vessel, as represented in the lower part of the diagram.

With oil of peppermint thus arranged, the superincumbent water certainly becomes highly impregnated after a week's immersion, but whether it be preferable to enclose the oil pure and simple, or previously rubbed down with calcium phosphate and water, remains a subject for future enquiry; the automatic replenisher in this instance would probably have to be abandoned on account of a possibly unequal rate of diffusion of the several constituents of the oil.

Substituting 1 lb. of slaked lime for the chloroform, and following the same directions, most satisfactory lime water is obtained—the slaked lime to be previously washed with water, after subsidence the supernatant liquid to be thrown away, and the sediment transferred to the bag. It may be worthy of notice that, in the absence of distilled water, clear blocks of natural ice yield a product, after melting, filtering, and boiling, that will stand all the Pharmacopœia tests for impurity; indeed, water, in the act of freezing, becomes completely separated from everything which is previously held in solution, a familiar physical fact of mere theoretical interest to the pharmacist.—*The Pharmaceutical Journal.*

Acetylene as an Illuminant.

We are all interested in new illuminants, and any proposal which has for its object the cheapening and simplifying of existing means of lighting is always deserving of attention. That there is great need for a new illuminating agent is evidenced by the increasing demand in many places, for numerous purposes, of a self-contained source of gas of high illuminating power. It would seem that we are within measurable distance of obtaining this advantage. Professor Vivian B. Lewes has been discussing the synthetic production of acetylene by means of the electric arc. In an exceedingly interesting paper on the subject, he points out that from that simple hydro-carbon can be produced all those bodies which are amongst the most important in our coal gas, and which so far have only been obtained by destructive distillation of coal, hydro-carbon oils, or other organic substances. Recent research, however, has shown that by fusing a mixture of powdered chalk and carbon in an electric furnace a compound called calcic carbide is formed, which is decomposed by water into lime and acetylene. Professor Lewes is of opinion that this process is commercially practicable. Data received by him from America shows that the calcic carbide can be produced at a little under £4 a ton, while the beautifully pure lime obtained by the decomposition would be worth to the gas manager about 10s. a ton. The illuminating power of acetylene is about fifteen times as great as that of London gas, so that the light of 1,000 feet of the latter should be obtained for less than 6d. by the use of acetylene. Professor Lewes points out that acetylene obtained in this way may be used either to give a very high illuminating effect by itself, or to enrich low-grade coal gas. It may be compressed and distributed in steel cylinders, or the calcic carbide may be fused into sticks, which can be decomposed by water, in suitable apparatus, at the place where the gas is required for consumption. Professor Lewes has certainly made out a very clear case for the future success of the new illuminating agent, and should it prove as practicable as he suggests there would seem to be a special field for it abroad, seeing that it can be fused into sticks, and afterwards decomposed by water.—*Foreign and Colonial Importer.*

A sluggish merchant and a wide-awake trade don't go well together.

Don't try to run a hundred-thousand-dollar-business in a fifty-thousand-dollar town.

3 GOOD SELLERS

VELROSE

SHAVING CREAM
SHAVING STICK
BARBER'S BAR

PAY YOU WELL. PLEASE YOUR CUSTOMERS

ATTRACTIVE COUNTER ARTICLES

Order Sample ½ dozen from your wholesale house to come with next order.
We supply Samples for free distribution with first orders.

THOS. LEEMING & CO.

MONTREAL

Druggists

taking proper interest in his establishment will provide his customers with first-class goods only.

E. B. Eddy's

Toilet Papers and Fixtures form part of the Stock of a well-equipped drug-store.

HULL, MONTREAL, TORONTO.

LITTLE'S PATENT FLUID
NON-POISONOUS
SHEEP DIP
AND CATTLE WASH.

For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

☞ 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at **$1.00**. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.

CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and $1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton, and London, Ont., and Winnipeg, Man.

SODA WATER APPARATUS

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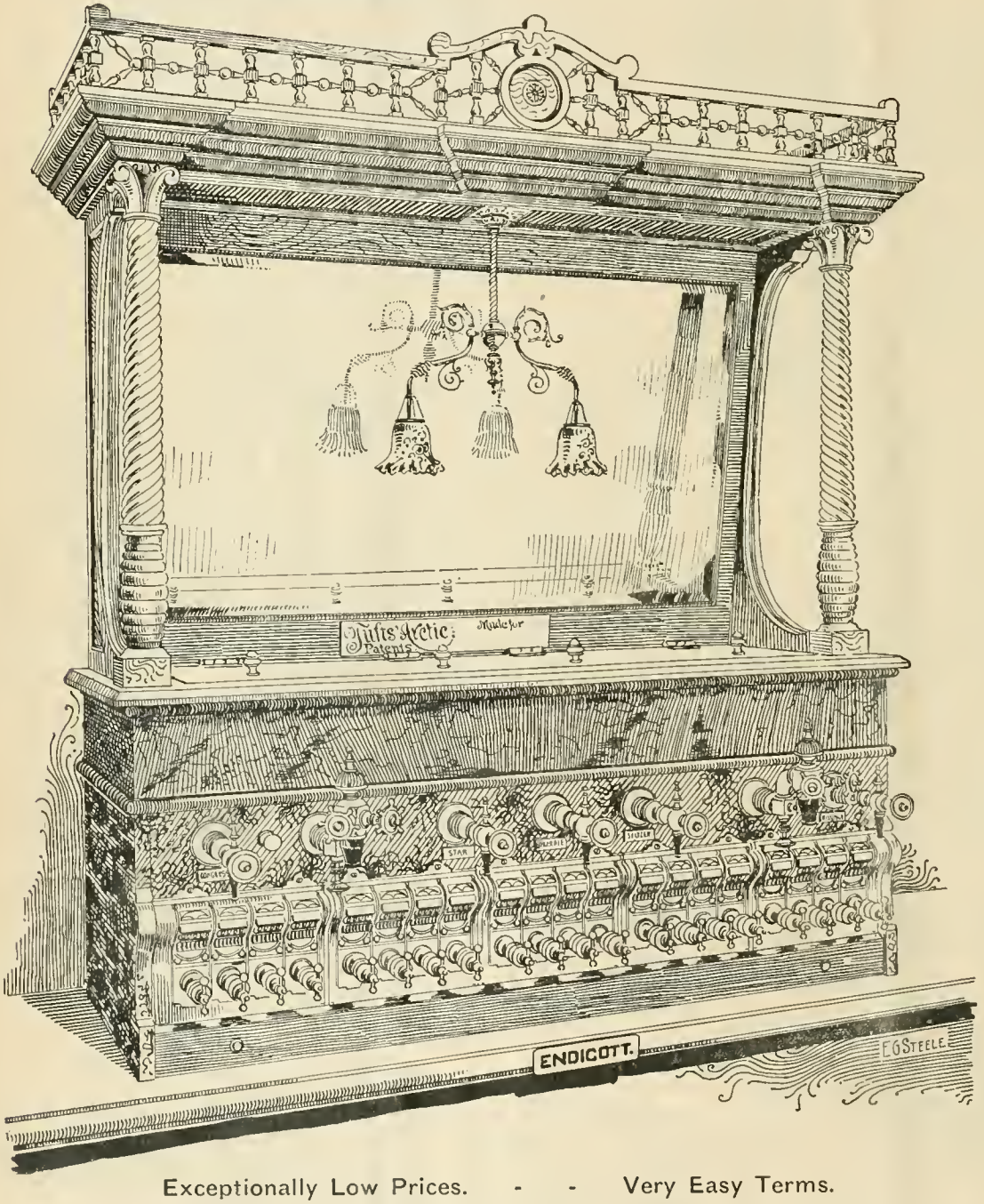

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Red, Yellow, and Black.

ONTARIO COLLEGE OF PHARMACY DINNER.

On the evening of the first of March was held the graduating class dinner, the most important social event in the academic year at the Ontario College of Pharmacy. Over a hundred sat down to the sumptuous repast provided by the Rossin House, and their appreciation of the effort of the *chef* was apparent by the way the victuals disappeared. After the menu the gathering was called to order by the chairman, Mr. Newton H. Brown, who, in behalf of the class, briefly welcomed the guests. The president of the Montreal College of Pharmacy sent greetings and best wishes, and expressed sorrow that they were unable to send a representative. Mr. W. A. Karn, of Woodstock, member of the council, had come down for the dinner, but had been taken ill with grippe, and so was unable to attend.

The chairman then proposed the toast to "The Queen," which was received by the National Anthem, sung by all present. The toast to Canada was followed by the "Maple Leaf." Mr. Geo. F. Campbell, in one of the best speeches of the evening, referred to the character, climate, and resources of Canada, to her educational system, of which Toronto University was the head in Ontario, and to the position of the College of Pharmacy in affiliation with the University, and ably showed reasons why every Canadian should be proud of his native land. This speech was followed by singing "Rule, Britannia." Mr. Lucas was next called upon to propose the toast of the evening—"The College and Faculty." This toast was greeted by the college yell—

"Who are we?
Phar-ma-cy—
We are from
The O—C—P."

Mr. C. D. Daniel, the only member of the council present, replied on behalf of the college. After a few humorous remarks, he spoke of the standing of the college, and said that it stood in absolutely the first place in the colleges of pharmacy in America, and ranked well with those of the old world. Other colleges may have finer buildings than ours, others may have finer equipments, but none turn out students with a better pharmaceutical education. Our diploma is accepted by boards of pharmacy all over the United States, while few of theirs are accepted outside of their own district. This has not been won by reciprocity; for our council would accept no diploma from a college of inferior standing to our own. He added that the council were far from satisfied with the present equipment, and hoped to still improve on the training and education that the college affords the students. The present high examination standard of 66 per cent. for a pass and 75 per cent. for honors was not set to lessen the number of druggists, or to prevent students from entering the business, but solely with the object of maintaining the standard of the college, for it was that very thing that made our diploma so desirable and so valuable to the holder.

Dean Heebner and Dr. Fotheringham then followed on behalf of the Faculty. The Dean evidently thought the boys had enough of his seriousness through the term without having any that evening, for his speech was humorous throughout, keeping the boys in constant laughter till he had finished. He took as his text the quotation which he found on the menu card:

"Think not of our approaching ills,
Nor talk of powders, plasters, pills,
To-morrow will be time enough
To hear such mortifying stuff."

He enlarged on the first two lines, and, at the request of the class, declared the lecture for the next morning off, although he thought the last two lines sounded like a request to leave it on.

Dr. Fotheringham jokingly referred to an "ad." on the programme, which read, "Use Dr. Fotheringham's Anti-fat," and said that the remedy was not for sale. He complimented the class on the success of the evening's entertainment, and said that although they had shown themselves to be fond of recreation and pleasure, yet he did not think a professor in the city could boast of a harder working or more studious lot of students than he could in the College of Pharmacy. Moreover, he did not know of any class of students who were, as a whole, more neat and careful of their personal appearance than the boys of the O.C.P.

The boys then sang "Vive la Pharmacie," a version of "Vive la Compagnie," written for the occasion.

VIVE LA PHARMACIE.

Bring hither a beaker and fill it with wine,
Vive la Pharmacie,
And pledge Alma Mater with ninety times nine,
Vive la Pharmacie.

CHO.—Vive le, vive le, vive le roi,
Vive le, vive le, vive le roi,
Vive le roi, vive la reine,
Vive la Pharmacie.

Here's to the Council who meet twice a year,
To deal out the parchment we're working for here.

The Professors come next, and they're not a bad lot,
There's Heebner and Fotheringham, Chambers and Scott.

Here's to old Isaac, the muscular man,
When he braces himself, shove him over who can.

And now to the Grads. this health we will sing,
For we hope to be Graduates, too, in the spring.

And here's to the Students of Ninety-five—
May they pass the exams. and come out alive.

Mr. E. A. Walters, in proposing the toast to "Sister Institutions," referred to the noble family of colleges which form the University of Toronto, of which the College of Pharmacy is probably the youngest member. If our college is ever moved from its present site we will hope that it may be moved closer to the head of the University—University College—so that our students may imbibe more of the true college spirit from closer relationship with the other students. He also expressed the good will of the class toward the Trinity medical department, and closed by asking the students to drink brotherly love and fraternal affection to the toast of "Sister Institutions."

This toast was responded to by representatives from University College, Toronto and Trinity Medical Schools, School of Practical Science, and the Dental College.

Mr. T. J. Gledhill made a rather humorous speech in asking the boys who were working for the sheepskin of the college to drink to all owners of sheepskins as being the fortunate members of the drug fraternity. In response to this toast to the graduates Mr. T. Allen made a very happy speech, and wished the boys all possible success at their examinations. Mr. Elliot, jr., of the firm of Elliot & Co., spoke of the commercial outlook of the drug trade, and said that the money to be made in pharmacy of the future lay in the druggists making all their own preparations and in putting into use the higher pharmaceutical processes they were taught at the college.

Mr. Wright, with a burst of eloquence, asked the boys to drink "princely prosperity, perpetual progress, and protracted popularity to the public press," which toast was responded to in one of the best speeches of the evening by Mr. Montgomery, of the *'Varsity*, the student organ of the University.

The toast to the ladies was proposed by Mr. H. A. Rowland, and ably responded to by Mr. Leonidas Rattey, whose love for the fair was manifest. "Ourselves" was proposed by Mr. Urquhart, and answered by Mr. McNichol. After the final toasts to the chairman and the committee, this most enjoyable evening was brought to a close with "Auld Lang Syne." During the speeches numerous songs and solos were rendered, among which was a new version of "Litoria," written for the occasion:

LITORIA.

Ye Pharmacy man goes out to dine—
Swe-de-le-we-dum bum,
But never touches any wine—
Swe-de-le-we-dum bum;
He makes the stock of victuals fly—
Swe-de-le-we-tchu-hi-ra-si,
And tackles all from soup to pie—
Swe-de-le-we-dum bum.

CHO.—Litoria, Litoria—
Swe-de-le-we-tchu-hi-ra-sa,
Litoria, Litoria—
Swe-de-le-we-dum bum.

He sits him down and tries to smoke;
He laughs when e'er he sees a joke;
He drinks the merry toast with glee,
And hollers loud for Pharmacy.

He tries to dance a stag-dance reel,
But in his head he feels a wheel;
He mixes up surrounding scenes,
And isn't worth a hill of beans.

Ye night is past. He wanders home.
No more to dinners will he roam.
He climbs up to his attic den
And rests his loaded abdomen.

Messrs. C. W. McPherson, W. S. McKay, and J. S. Martin took solo parts. The menu card was exceedingly neat and tastefully gotten up, and should prove a fitting souvenir for such an enjoyable event.

Mr. Newton H. Brown occupied the chair, and his committee was as follows: Mr. J. A. Graham, secretary; Mr. W. J. Bauld, treasurer; Messrs. Geo. F. Campbell, E. A. Walters, Frank Ross.

The Opium Trade of Asia Minor.

Opium is perhaps the most interesting, the most valuable, and the most famous product of Asia Minor. This substance, which resembles a resinous gum, is extracted from the capsules of poppy-heads. Incisions are made in the capsules after the fall of the flowers, and the juice which runs from them is then dried and made up into blocks of various sizes. These are covered with leaves and sent in special bales to the market at Smyrna.

The poppy is usually cultivated in the central regions of Asia Minor on firm soil of sandy or chalky clay, richly manured. Several sowings are made throughout the course of the year, but the crops are grouped under two general denominations, the autumn and the spring crops. The autumn sowings are begun towards the end of the month of September, and produce the greater part of the harvest. The seed is sown in fields which have been plowed or dug up, and when the plants have appeared a great many are destroyed in order to assure to each plant a clear space of about 75 centimetres. The earth ought to be stirred and hoed three times over before the time for picking the poppy-heads has come.

After the month of November the snow almost always covers up the young plant, which is thus preserved from frost and the severity of the winter until the snow melts, that is to say, until March. It then grows vigorously until it becomes from 1 to 1½ metres in height. Each plant produces from 5 to 30 globular capsules, which are generally oval in form. The flowers are large, solitary at the top of the ramifications, and composed of four or five petals set in the form of a cross, and crumpled until they expand. They are of all shades from white to red. When the capsule is ripe it takes a pale yellow tint. This is the moment for making the incisions. They are always made at sunset; the juice which oozes from them in the form of tears is collected next morning, at dawn, in shells. It is then dried and moulded into the form of blocks, which are wrapped in leaves of the same plant. From its first appearance until the time of harvest, the plant is exposed to all the intemperance of the weather, excess of rain or drought, of cold or heat, violent winds, etc., and it is thus peculiarly liable to be injured on the nights which precede the incision of the capsule.

*From a report of the French Chamber of Commerce at Smyrna.

The seed is sown two or three times in spring, between the beginning of February and the end of April. This crop requires greater uniformity of weather, especially frequent rains. The consequence is that the spring sowings are more delicate, and their product is sensibly inferior to that of the autumn crop.

The blocks are left to dry, and are then arranged in high baskets containing about 75 kilogs., with certain leaves which have the property of keeping the opium in good condition, and of preventing the blocks from sticking to one another. The bales are then forwarded to Smyrna and Constantinople to be sold there to exporters. Turkish opium has produced during the last fifteen years an average of 6,000 bales. One single year, which was absolutely exceptional, produced 11,000 bales. But this year we have only 3,000, a figure just as abnormal as the preceding.

These are the various varieties of opium and their respective values:

(1) *Malatia, Tokat, Zileh.* Quality extremely fine, and the paste much appreciated by Chinese smokers for its delicate flavor. Amount of morphine very small, varying from 8 to 11 per cent., which is only obtained by means of a special selection.

(2) *Boghadich.* The best quality of Turkish opium, paste delicate and fine, greatly appreciated, especially by the smokers of Central America.

(3) *Yerli.* All opium which is grown in the neighborhood of Smyrna is called Yerli. It is less valued than that of Boghadich, but is as rich in morphine. This is the quality which is used for drugs and in medicine.

(4) *Chaïe.* This kind is so like that of Yerli that it may be included in the same category.

(5) *Salonica.* The cultivation of opium at Salonica is of relatively recent date. It has greatly extended, and produces about 800 bales per annum, half of which, of very fine quality, is more appreciated than even the Boghadich.

(6) *Karatrissar.* This is the district which produces the most opium, and supplies, on a large scale, the trade of England, America, and Holland. The quality of this variety is very good; the morphine varies from 9 to 12 per cent.

(7) *Adeth.* Average quality brought from all parts of the interior. The Turkish word "adeth" means "usual." It represents the ordinary type, which is easily sold for China and America, and the amount of morphine is almost uniformly 9.5 per cent.

(8) *Chinquiti.* This name is given to a quality of opium from various parts of the interior. It is opium mixed with foreign matter; it contains morphine sometimes to the extent of 9 per cent.

(9) *So so.* Under this name are designated those opiums which are bought in the condition in which they arrive from the interior. There is a mixture of five kinds and of Chinquiti. The morphine is from 9 to 11 per cent. It should be noted that mouldy opiums of bad appearance, which are rejected, are often found figuring afterwards in the category of the "So so's."

These are, approximately, the quantities exported each year:

	Bales.
For England	1,000
" North America	2,000
" Central and South America	600
" Spain and her Colonies	500
" Holland	500
" France	300
" Germany	300
" Italy	100
" Other countries	100
Total, about	5,400

or cases representing at the average price of 48 francs the kilogramme, eleven million of francs.

The permanent stock, at the end of the season, which closes on the 15th of June, is valued approximately at 1,000 bales between Smyrna, Constantinople, and the producing districts. The maximum price of opium of late years has been 40 francs the kilogramme, and the minimum price to which it has fallen has been 18 francs; but this fall only occurred once, and lasted but a very short time. In any case we are very far from that period when this article, which used to play a preponderating part in the export trade of Smyrna, sometimes reached very high prices indeed. The price used to go up and down, producing great profits and serious losses. But the speculative spirit which used to mark the opium trade has entirely disappeared, the variations of price are slight, and only follow the normal law of supply and demand, in consequence of the extent of the crops and the requirements of the consumer.—*Board of Trade Journal.—Pharmaceutical Journal and Transactions.*

Sodium Carbonate.

Chemically pure sodium carbonate for analytical purposes is prepared by Reintzer (*Chem. Centralbl.*) by taking 250 cc. of water of 80°C., and dissolving in it as much sodium bicarbonate as it will take up. After filtering and cooling to 10°C. a double salt crystallizes out, to which the formula $Na_2CO_3 + NaHCO_3 + 2H_2O$ is assigned. These he separates, washes with a little cold water, and then converts the substance into Na_2CO_3 by heating in a platinum crucible at just below perceptible red heat.

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Guasti gives (*L'Orosi*) the following method for detecting acetanilid in phenacetin, when present to the extent of 4 per cent. or more: Boil 0.5 gram of the sample with 10 cc. of water; cool, filter off the deposited phenacetin, concentrate the filtrate, boil with 1 cc. of hydrochloric acid, and treat with phenol and calcium hypochlorite solution. On adding an excess of ammonia, the liquid assumes an indigo blue color if acetanilid is present.

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Folding Cartons, or Cartons and Wraps.

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Folding Cartons, or Cartons and Wraps.

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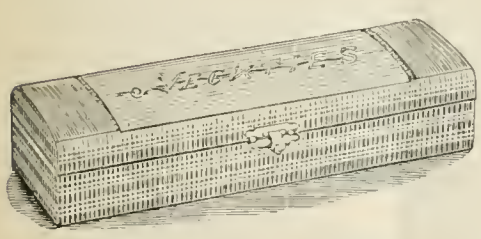

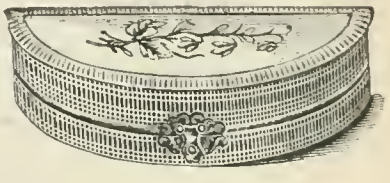

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An Act to Further Amend the B.C. "Pharmacy Act, 1891."

The following is the full text of the amendments as certified correct and passed third reading on February 11th, 1895 :

Her Majesty, by and with the advice and consent of the Legislative Assembly of the Province of British Columbia, enacts as follows :

(1) This Act may be cited as the "Pharmacy Act Amendment Act, 1895."

(2) Section 10 of the "Pharmacy Act, 1891," is hereby repealed, and the following inserted in place thereof :

"10. The Board of Examiners shall examine the candidates and grant such certificates or diplomas as they may think proper to those whom they deem qualified to be licentiates of pharmacy, certified clerks, or certified apprentices. The said Board of Examiners shall consist of three members of the Association, who shall be appointed annually by the Lieutenant-Governor in Council. In case of any vacancy occurring in such Board, such vacancy shall be filled by the Lieutenant-Governor in Council."

(3) Section 11 of the said Act is hereby repealed, and the following substituted in place thereof :

"11. All persons approved of by the Board of Examiners who by examination have obtained diplomas from the Pharmaceutical Society of Great Britain, or certificates from any Pharmaceutical Association, or in the Dominion of Canada or elsewhere, whose standing and requirements are equal to those of the Pharmaceutical Association of British Columbia, may be registered as members of the Pharmaceutical Association of British Columbia without the examination prescribed by the said Act. Such diplomas or certificates must be accompanied by certificates of good moral character, and shall be subject to such other regulations as may be provided for in the by-laws of the Association : Provided, also, that such persons must have attended two courses of lectures in chemistry, two in materia medica and pharmacy, and one course in botany, in the British Columbia School of Mines, or such other school or college whose standing and requirements are equal to those of said British Columbia School of Mines. Such courses each to consist of not less than fifty lectures : Provided that the by-laws of the Association shall not require on the part of the applicant any previous residential qualifications."

(4) Section 12 of the said Act is hereby amended by adding thereto the following sub-sections :

"(*a*) It shall be unlawful for a certified apprentice to compound prescriptions or sell poisonous drugs or chemicals unless under the direct supervision of a licentiate of pharmacy or certified clerk :

"(*b*) Whenever any city or town in British Columbia is incorporated after the passing of this Act, all persons who have been practising as chemists or druggists on their own account in any such city or town before its incorporation for the period of six months shall be entitled to be registered under this Act without examination, provided application is made therefor within the period of six months after such incorporation."

(5) Section 16 of the said Act is hereby repealed, and the following substituted in lieu thereof :

"16. No person shall, within the limits of any incorporated city or town in this province, keep open shop for the retailing, dispensing, or compounding poisons, or sell, or attempt to sell, any of the articles mentioned in Schedule 'A' or Schedule 'B' to this Act, unless such person is registered as a licentiate of pharmacy under this Act, under the penalty set forth in section 20 in this Act. A certified clerk may, under the provisions of this Act, compound prescriptions or sell poisonous drugs or chemicals while acting in that capacity."

(6) Section 17 of said Act is hereby repealed, and the following substituted in lieu thereof :

"17. Articles named or described in Schedule 'A' or Schedule 'B' shall be deemed to be poisonous within the meaning of this Act ; and the said Council hereinbefore mentioned may from time to time by resolution declare that any article in such resolution named ought to be deemed a poison within the meaning of this Act, and thereupon the said Council shall submit the same for the approval of the Lieutenant-Governor in Council ; and if such approval is given, then such resolution and approval shall be advertised in the British Columbia *Gazette*, and on the expiration of one month from such advertisement the article named in such resolution shall be deemed to be a poison within the meaning of this Act, and the same shall be subject to the provisions of this Act, or such of them as may be directed by the Lieutenant-Governor in Council."

(7) Section 18 of said Act is hereby repealed, and the following substituted in lieu thereof :

"18. No person shall sell any poison named in Schedule 'A' either by wholesale or retail unless the box, bottle, vessel, wrapper, or cover in which such poison is contained is distinctly labelled with the name of the article and the word 'poison,' and, if sold by retail, then also with the name and address of the proprietor of the establishment in which such poison is sold ; and no person shall sell any poison mentioned in Schedule 'A' to any person unknown to the seller unless introduced by some person known to the seller, and on every sale of any such article the person actually selling the same shall, before delivery, make an entry in a book to be kept for that purpose in the form set forth in Schedule 'C' to this Act, stating the date of the sale, the name and address of the purchaser, the name and quantity of the article sold, the purpose for which it is stated by the purchaser to be required, and the name of the person, if any, who introduced him, to which entry the signature of the purchaser shall be affixed, under the penalty set forth in section 20 of this Act : Provided the person actually selling the poison shall be liable to the penalty mentioned in this Act."

(8) Section 19 of said Act is hereby repealed, and the following substituted in lieu thereof :

"19. Any article enumerated in Schedule 'B' to this Act shall not be sold unless the container of such be distinctly labelled with the name of the article, name and address of the seller, and the word 'poison' affixed thereto, under the penalty set forth in section 20 of this Act."

(9) Section 27 of said Act is hereby repealed, and the following substituted in lieu thereof :

"27. It shall be lawful for the Lieutenant-Governor in Council to appoint a fit and proper person to be known as 'Public Analyst,' who must be a member of the Pharmaceutical Association, and who may be allowed to charge such fees in respect of analyses to be made by him as the Lieutenant-Governor in Council may approve. And in any prosecution under the said Act a certificate of such Public Analyst as to the identity of any drug, chemical, or compound shall be deemed good and sufficient evidence of the same."

(10) Section 28 of said Act, and section 1 of the "Pharmacy Act Amendment Act, 1892," are hereby repealed, and the following substituted therefor :

"28. Nothing in this Act contained shall prevent any duly qualified member of the medical profession or surgeon from engaging in or carrying on the business of an apothecary, chemist, or druggist, provided that when any such duly qualified member of the medical profession or surgeon desires to carry on the business of a chemist or druggist, as defined by the said Act, he shall not be required to pass the examination, but shall register as a chemist or druggist and otherwise comply with all the requirements of the said Act. And it shall also be incumbent upon any medical practitioner or surgeon now carrying on the business of a chemist or druggist within the incorporated cities and towns of the province to register annually and otherwise conform to all the requirements of the said Act."

(11) The said Act is further amended by adding thereto the following section :

"29. In any conviction under this Act the penalty may be enforced by distress and sale of the goods of the offender, and in case of there being no sufficient distress found out of which the same can be levied, such offender shall be liable to be imprisoned for any period not exceeding one month. Every such penalty when collected shall be paid to the Treasurer of the Pharmaceutical Association of British Columbia for the general purposes of the said Association."

(12) Section 7 of the "Pharmacy Act, 1891," is hereby amended by striking out sub-section (*f*).

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

MARCH 15TH, 1895.

THE *India Rubber and Gutta-Percha Journal* is authority for the statement that a member of the firm of Messrs. A. & F. Pears, together with an associate inventor, have been successful in manufacturing a perfectly fireproof celluloid from spent fibres from paper mills, which they are proposing to manufacture on a large scale.

THE manufacturers of the new antipyretic and analgesic called "Antitoxin" have announced their determination to take proceedings to prevent the use of this word, except as applied to their product. They claim that the name, as used to designate the diphtheria serum, is an infringement of their trade mark, which was registered some years ago.

THE graduating class of the Ontario College of Pharmacy are to be congratulated on the unqualified success which attended their dinner, held on the evening of March 1st. The menu was good, the speeches witty and enjoyable, and the management excellent. Chairman Brown and the other members of the committee who had the affair in charge showed what the "red, yellow, and black" can do in providing an enjoyable evening. The O.C.P. is always ahead.

Death of Mr. S. M. Burroughs.

Silas Mainville Burroughs, of the firm of Burroughs, Wellcome & Co., Snow Hill, London, England, died at Monte Carlo, whence he had gone but a short time previously for his health, on February 6th.

Mr. Burroughs was an American by birth, having been born in Medina, N.Y., December 24th, 1846, and began his pharmaceutical career in Lockport, N.Y., afterwards entering the house of John Wyeth & Brother, Philadelphia. In 1880 the firm of Burroughs, Wellcome & Co. was formed, and the success of the business then established has been almost phenomenal.

In social, business, and religious circles Mr. Burroughs was a prominent figure, and made hosts of friends by his urbanity of manner, generous disposition, and a distinct personality, which impressed all who came in contact with him. He was a liberal contributor to the Pharmaceutical Society's Benevolent Fund, donated £1,000 to the Dartford Cottage Hospital, and helped to support a number of charitable and religious institutes in his native town. Mr. Burroughs leaves a widow and three small children.

Justice to a Manufacturing House.

There appeared in the Toronto *World* of February 22nd a statement that Parke, Davis & Co., of Walkerville, Ontario, were seeking to introduce low-grade alcohol into their Canadian laboratory for the manufacture of patent medicines, and in the issue of the same paper of February 26th an anonymous letter appeared, alleging that the low-grade alcohol was desired "for the manufacture of pharmaceutical preparations intended to be used for the making up of prescriptions." That a very great wrong had been done this firm in the publication of such false statements every one will admit, and the complete retraction of the charges and insinuations by the *World* in its issue of March 2nd was but an act of justice towards the firm.

Parke, Davis & Co. indignantly deny that their petition to the excise authorities had any bearing whatever on low-grade alcohol. What they wanted was simply permission to introduce pure, standard, rectified spirit in bond for the manufacture of pharmaceuticals designed for export on a large scale to foreign countries. Such standard spirit can be imported in bond at the price of 25 cents per imperial gallon. At present Parke, Davis & Co. are greatly hampered by the high market price of alcohol in the Dominion—$1.17 per imperial gallon in bond, and to this must be added the excise duty of $1.50 proof gallon! Their proposition to the excise authorities was cheerfully complied with; will reduce substantially the cost of producing goods for export; will enable them to compete with European manufacturers in the markets of the world outside the Dominion; and will not involve the slightest sacrifice of quality or potency in the finished preparations.

They also strenuously aver that no low-grade alcohol has ever entered into any preparation of their manufacture, and their petition had no bearing on any save the pure, standard, rectified spirit.

Practically, there is no such thing on the market as "low-grade alcohol," unless this term be applied to dilute alcohol. Inasmuch as every manufacturer is perfectly free to purchase pure spirit (94 per cent.) and dilute it in accordance with the needs of the product manufactured (some preparations require strong alcohol as a solvent, and others require dilute spirit), it would be absurd to talk of low-grade alcohol in this connection. The only other form of "low-grade alcohol" is a certain crude product supplied exclusively to establishments manufacturing vinegar under bond. The well-known "wood alcohol" could not possibly be used in the manufacture of pharmaceuticals, owing to its obnoxious odor.

The charge made that Parke, Davis & Co. desire to employ a low-grade spirit for the manufacture of patent medicines was another gratuitous misstatement. This house has, we understand, no proprietary interest in any patent medicine, nor does it advertise or sell any of its products to the public. It confines its operations entirely to the medical profession, which it reaches through the usual channels of the wholesale drug trade and retail pharmacists.

The reputation of this house throughout Canada is such that no druggist, we believe, would give credence to any such charges; and we feel it a duty towards one of our most enterprising and reliable manufacturing concerns to give the facts as they actually are.

The Ownership of the Prescription.

The question as to whom a prescription really belongs, when it has been made up by a pharmacist, has frequently been raised in connection with French pharmacy. No special rule has been laid down with regard to it, and, consequently, pharmacists have been in the habit of keeping the recipes or not, as they think fit. M. Bogelet, the lawyer of the General Association of French Pharmacists, has expressed the opinion that a general system should be adopted for pharmacists to retain, for the purpose of personal guarantee, all prescriptions containg either active poisons or those that are dangerous. They should, however, undertake to deliver proper copies, bearing the address of the pharmacy, to patients. Article 15 of the proposed new law touches the question slightly by saying: "If pharmacists retain a medical prescription, they ought to deliver an exact copy, if this is asked for."—*Chemist and Druggist.*

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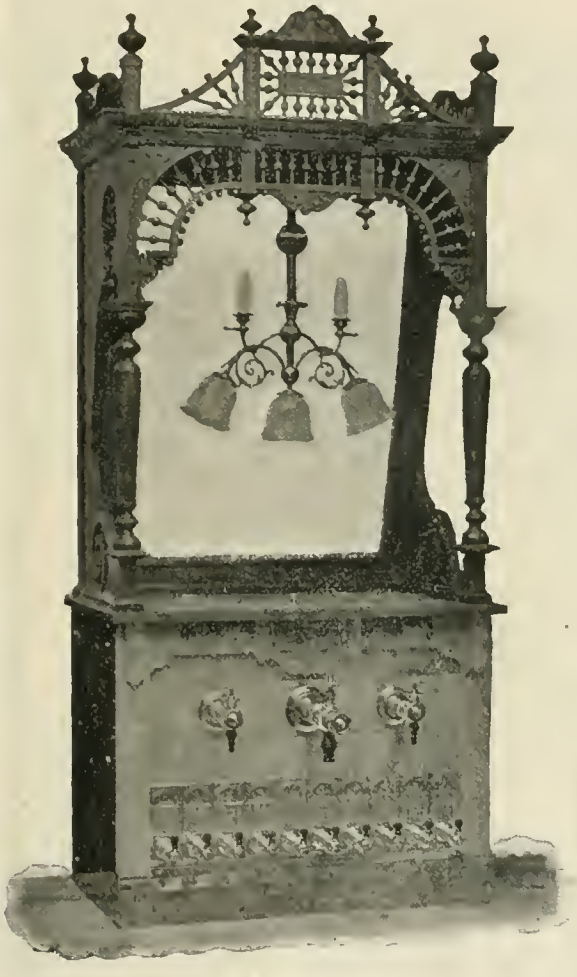

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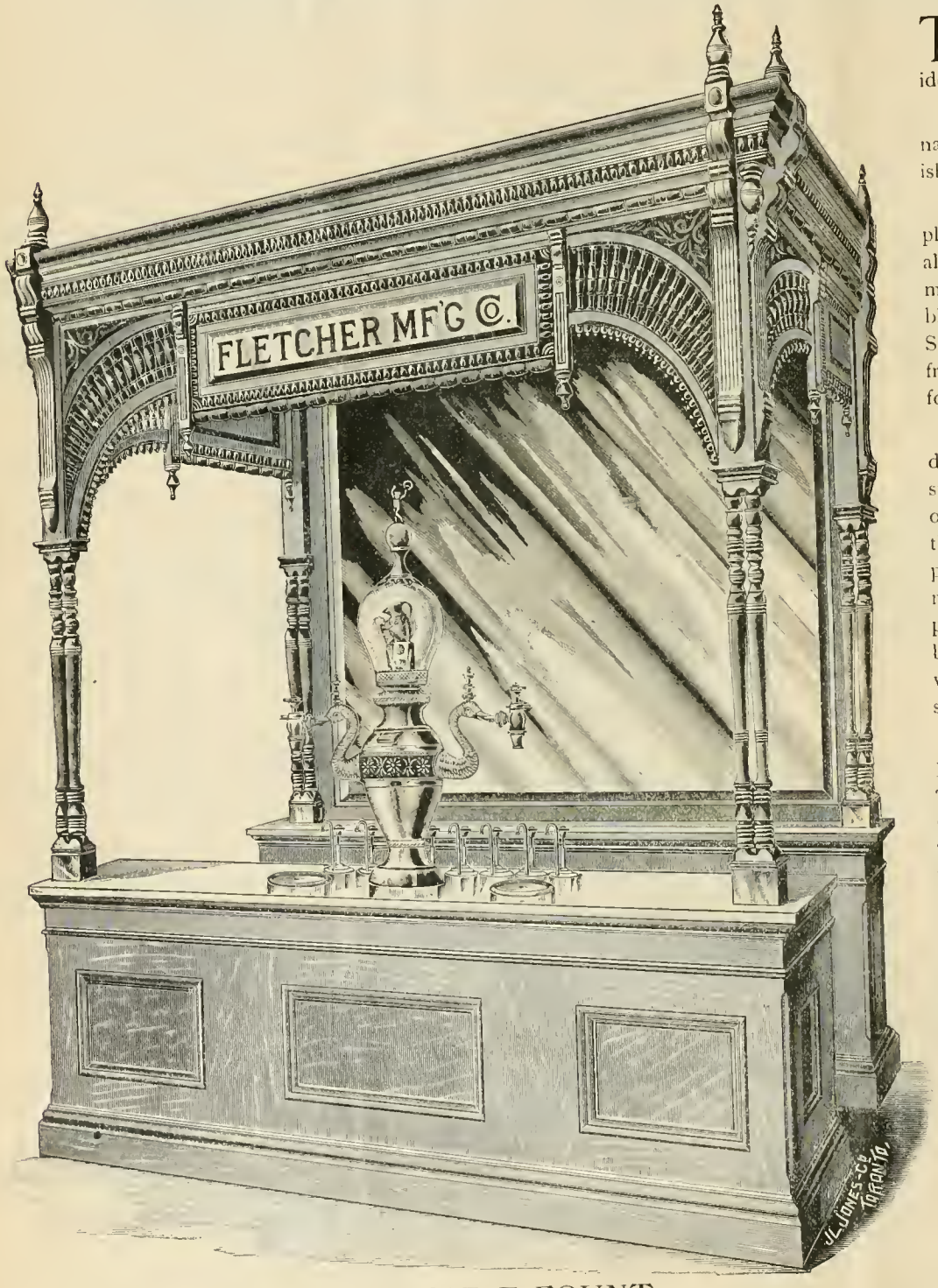

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WRITE FOR CATALOGUE

The Bacteriological Examination of Water.*

By R. A. Cripps, F.I.C.

During the last few years the literature of the subject of Bacteriology has become so extensive that anything like a general epitome of the subject is quite beyond the scope of a paper for a single evening. I shall, therefore, restrict my remarks to that department of the subject which has a practical application in the examination of water for drinking purposes.

Before proceeding to the subject proper, it may, however, be well to give a general idea of the characters of the micro-organisms under consideration, so that those who are not already familiar with them may be able to understand more clearly the facts referred to. Those organisms commonly grouped together under the term "bacteria" are unicellular bodies of extremely minute proportions; some idea of their size may be given by the statements that if 10,000 of some of the smaller forms were placed end to end the thread would be only one inch long, and a cubic inch of the organisms in mass would contain ten millions of millions of individuals. These organisms are not all of the same form, and, in consequence, may be arranged into various classes; perhaps Cohn's system is the most convenient for general use:

(1) Coccaceæ, Ball bacteria. Cells spherical or shortly elliptical.

(2) Bacteriaceæ. Rod-bacteria. Cells distinctly longer than broad, straight rods, varying in length,

(3) Spiro-bacteria, Vibrionaceæ. Cork-screw bacteria. Cells curved, often twisted into long or short spirals.

(4) Desmo-bacteria. Thread bacteria. Cells united to form long threads, some being enclosed in sheaths.

The bacterium consists of protoplasm enclosed in a membrane, usually of an albuminous nature. Some species possess flagella, by means of which they have the power of motion, and which may be situated on certain parts of the cell only, or distributed over the whole surface. In some species no flagella have been observed. Of the motile forms some species may be seen to dart rapidly across the field of vision, others move but sluggishly.

Some forms develop distinctive colors, but the majority are colorless or yellowish.

A fact of the utmost importance is that bacteria are unable to rise in air, unless carried upward by a draught, and in water, at rest, most species subside to the bottom.

Many kinds of bacteria produce spores, which are far more resistant to the effects of temperature, etc., than the parent bacteria; these spores often remain as such for a considerable period of time, and then develop when favorable conditions obtain.

*Read at a meeting of the Brighton Association of Pharmacy.

The application of bacteriology to the subject of water supply may conveniently be considered under three sections:

(1) The determination of the efficiency of filters.

(2) The general examination of water as to suitability for drinking purposes.

(3) The special examination of polluted water for individual species of bacilli.

1. THE DETERMINATION OF THE EFFICIENCY OF FILTERS.

The value of bacteriological examination for this purpose has for several years past been recognized, and the system is now in full operation in connection with the water supply of many towns.

For this purpose samples of water must be taken before and after filtration—in such a position that the samples shall fairly represent the water actually running at the time—and the number of bacilli in each sample determined. The bottles in which the samples are taken must be previously sterilized, either by heating for three hours to a temperature of 130°—160° C., or by filling with a solution of bichloride of mercury (1—1,000), allowing to stand one hour, and then rinsing six or eight times with water previously rendered sterile by boiling for an hour in a flask plugged with cotton-wool, and covered with a small, sterilized beaker. Water may also be sterilized by passing through a Chamberland-Pasteur or a Berkefeld filter. The stoppers of the sterilized bottles are tied over with sterilized gutta-percha tissue, and transported in tins or other suitable containers.

When taking the samples, every care must be exercised to avoid the possibility of infection from any external source; the stopper must be removed by grasping between finger and thumb, together with the gutta-percha capping, and not laid down upon the ground, but held until the sample has been taken; the bottle is held in the other hand in such a position that no bacteria from the skin can enter the bottle; this is easily arranged when the supply is a flowing stream, but if a pool or reservoir the bottle should be held by a sterile clamp. The neck of the bottle must be completely immersed, so as to avoid the entrance of any dust which may have settled upon the surface of the water. When full, the stopper is replaced, and tied over as before. If the supply is carried by a pipe, the tap should be turned on for several minutes before taking the sample.

When the test has to be carried out at a distance, it is needful to pack the tins in ice, so that the temperature may not rise above 4° or 5° C. by the time the test is made. The case shown is one in constant use, the temperature twenty-four hours after packing is 0° C. The reason why it is so important to keep down the temperature is that the organisms multiply extremely rapidly at ordinary temperatures, but very slowly, or not at all, when kept at or near 0° C. Unfortunately, however, some species of bacteria are killed at the freezing point, consequently the results obtained may be lower than the truth. Moreover, the development of those which are not killed is much retarded by long continued low temperature. The bacteria in pure water obtained from deep springs usually multiply far more rapidly than those from streams; this is no doubt owing to the fact that the former waters do not contain any of those products of bacterial life which inhibit their further growth, whereas the latter usually do contain such products, and living bacteria in far larger numbers in addition. As an instance of rapid multiplication, Frankland gives the following figures:

Kent Well. On day of collection	7 bacteria.
" After 1 day at 20° C.	21 "
" After 3 days at 20° C.	495,000 "

The multiplication usually attains a maximum by about the seventh day, in the case of spring waters, but not until the fifteenth to twenty-fifth day in impure water of streams, after which the numbers rapidly decline.

The number of bacteria is ascertained by introducing small portions of the water into a suitable nutrient, and counting the colonies developed. This is commonly carried out in small flat-bottomed glass dishes known as Petri's dishes, which are furnished with covers of the same form. The most convenient medium for cultivation is gelatine-peptone, because this is solid at the ordinary temperature, yet may be liquefied by a very gentle heat, and thus easily and uniformly mixed with the water under examination. For its preparation a pound of lean minced beef is infused with a litre of cold water, and allowed to stand for twenty-four hours in a cold place, then strained and pressed, adding water to the strained liquor to produce one litre, if needed. To this liquid are added 100 grammes of fine white gelatine, 10 grammes of dry peptone, and 5 grammes of salt, and the whole placed in a steam sterilizer for an hour, after which it must be carefully neutralized, or rather rendered faintly alkaline. As the degree of alkalinity has a most important influence upon the growth of bacteria, the best plan is to remove a small portion of the medium and titrate by means of $\frac{N}{10}$ sodium hydrate, using phenol-phthalein as an indicator; having in this way ascertained the amount required for exact neutralization the correct quantity of normal sodium hydrate is added together with 1 gramme (per litre) of crystalline sodium carbonate; this being the degree of alkalinity which gives the best results. To this liquor, when cool, the whites of two eggs are added, and after admixture the whole is placed in the steamer for twenty minutes, when the coagulated albumen is removed by straining through linen, and finally cleared by filtration through white filter paper at a temperature of about 45° C. The filtrate is collected in a flask which is plugged with cotton-wool, previously sterilized at 130° to 140° C. trans-

ferred to steam sterilizer, and heated on four successive days during ten to fifteen minutes. Sterilized test tubes, also plugged with cotton-wool, may be partly filled and sterilized in the same way. Thus prepared, the medium may be preserved in the dark for months.

For the actual tests, at least four dishes are required for each sample, and these together with all other glass apparatus should be sterilized as usual in the air oven, several pipettes divided into $\frac{1}{10}$ cc. will be needed, also glass flasks of 100 cc. capacity for diluting the water.

The dishes having been placed on a level table and the nutrient melted at about 40° C, about 10 cc. is carefully introduced into each dish, removing the cover only so far as to allow of the liquid being poured in, and taking care to avoid infecting the nutrient, by using sterilized forceps for removing the cotton-wool from neck of flask, the lip of which must also be gently heated in Bunsen flame. Before the medium has solidified varying quantities of the water samples are introduced by means of the sterilized pipettes. Convenient amounts are 1 cc., $\frac{1}{2}$ cc., $\frac{1}{4}$ cc., $\frac{1}{10}$ cc., and $\frac{1}{100}$ cc., but with very bad water $\frac{1}{1000}$ cc. (or even less) will be sufficient. These smaller quantities are measured by first preparing dilutions of the original water with 99 or 999 times its volume of sterilized water. The water and medium have now to be thoroughly mixed by tilting the dishes backwards and forwards several times, and then set at rest in a cold place (refrigerated during hot weather) until thoroughly set, when they are transferred to an incubator and maintained at about 20° C. In those dishes which contain a sufficiently small portion of the water, each individual organism is separated from the others by mixing with so large a proportion of medium, and when this solidifies each one is kept in its place, consequently when it multiplies it in time produces a "colony" sufficiently large to be seen by the naked eye or a pocket lens. The dishes are therefore examined from time to time during several days. By the end of the second day, but frequently much earlier than this, some colonies will be seen, and these will increase in number until all are developed, when they must be counted. If few in number this may easily be done, but, if many, a special counting apparatus will be required. That usually employed is Wolfhugel's, which consists of a blackened plate, upon which the dish is placed, and covered with a glass plate divided into squares. The dish is viewed through this divided plate, and the number of colonies in five of the squares (diagonally) is counted. From this the number in the whole dish may be easily calculated. The following figures are given as an instance of results actually obtained :

$\frac{1}{2}$ cc.	contained	230	col's =	460 bact. per cc.
$\frac{1}{10}$ cc.	"	45	" =	450 " "
$\frac{1}{10}$ cc.	"	47	" =	470 " "
$\frac{1}{100}$ cc.	"	5	" =	500 " "
$\frac{1}{1000}$ cc.	"	1	" =	1,000 " "

In such a case, where the number of organisms is comparatively small, it is evident that the figures obtained from the smaller quantities are less reliable than those from the larger, and in calculating results it is well to omit them, the actual number to be certified in the above example would be 460, the mean of the first three plates. On the other hand, when the number is very large, the results from smaller quantities are more reliable than from larger ones, where the difficulty of accurate counting is a very real one.

Having thus ascertained the number of bacteria in the water before and after filtration, a simple calculation gives the percentage removed. When working well, sand-filters, as used by most water companies, will remove from 95 to 99.9 per cent. of the bacteria. This remarkable result is explained by the fact that the bacteria at first arrested by the upper surface of sand there multiply, forming a slimy coating, which serves as a very efficient filtering medium for the water. It follows, therefore, that a newly-constructed filter does not purify the water well, but requires a few days to attain its maximum of efficiency. It also follows that the rate of filtration becomes slower as the slimy coating increases in thickness—so much so that from time to time the upper surface of fine sand must be scraped off to the depth of about $\frac{1}{8}$ to $\frac{1}{4}$ inch.

The vast majority of bacteria present in natural waters are of a harmless character, but there is no reason to believe that pathogenic organisms, such as cholera and typhoid germs, will behave in any way differently from the ordinary "water bacteria," in fact, the experience of Hamburg during the cholera epidemic of 1892 shows that they behave similarly. The towns of Hamburg and Altona both drew their supply from the river Elbe. The former received the water from a point above the outfall of the town sewers, and did not filter it before supplying, whilst the latter took its supply below the outfall of sewers of both Hamburg and Altona. The neighboring town of Wandsbeck received water from an inland lake after filtration. The deaths from cholera in the three towns were as follows :

Hamburg	12.28	per thousand.
Altona	2.34	"
Wandsbeck	2.15	"

2. THE GENERAL EXAMINATION OF WATER AS TO SUITABILITY FOR DRINKING PURPOSES.

The first step in this examination is the same as already described, but it is evident that the bare determination of the total number of organisms present is of practically little value, because the great majority will usually be harmless forms, and the *purest* natural waters are capable of sustaining the life of vast number of bacteria ; moreover, as has been before observed, a water naturally very pure bacteriologically becomes teeming with bacterial life a few days after collection, by multiplication. There are, however, other considerations of much greater value, viz., the number of bacteria which cause liquefaction of the gelatine, and the number of different species present. When examining the dishes for the number of colonies it will be apparent that great differences exist between them, some appear within thirty-six hours or even earlier, whilst others do not become visible for several days ; moreover, some are found only upon the surface of the gelatine, others are entirely embedded beneath the surface ; the color may vary, the commonest being yellowish or white, reddish, brown, or gray. One very important difference is that while some forms cause rapid liquefaction of the gelatine, others liquefy it but slowly ; others, again, do not possess this power at all. This liquefaction may extend far beyond the visible circumference of the visible colony, or may be confined to a small radius ; the liquid gelatine may be thin or viscid, transparent or turbid. The form of the non-liquefying colonies is also important—round, oval, or irregular, or of characteristic form.

These liquefying bacteria are very frequently the cause of putrefaction, and produce unpleasant odors consequent upon the decomposition of the gelatine ; moreover, they are not able to live and multiply in pure waters to anything like the extent that the non-liquefying species do, hence their presence in large numbers is a very bad feature.

A water which becomes polluted by sewage and other household filth is thereby contaminated not only by great *numbers* of bacteria, but by many *species*, whereas a water drawn from a deep spring or other source remote from polluting influences contains comparatively few, and very few, perhaps only three or four, species of bacteria. The gelatines cultures having been made as usual, they are carefully examined, and a minute portion of each form of colony is removed by means of a needle (previously sterilized by heating in the Bunsen flame, and cooled), and transferred to test-tubes of gelatine or other culture media. The inoculation of test tubes is carried out either by "stroke" or "puncture" as follows :

For stroke culture test-tubes are used, containing gelatine, agar-agar, or sterilized potatoes. Agar-agar culture medium is prepared in the same way as gelatine-peptone, substituting for the gelatine 20 grams of agar-agar, which, however, requires prolonged heating to ensure solution. Potatoes are difficult to sterilize ; they are first washed, soaked in solution of bichloride of mercury (1-1000) for an hour or two, and then peeled ; again placed in bichloride solution for five minutes, washed with sterilized water, and cut into slices about one-third of an inch thick, with a sterilized knife. The slices are then put into sterile cultivation plates or test-tubes (plugged with sterilized wool), and placed in the steam sterilizer for an hour longer.

The wire having been heated in a flame and allowed to cool, without being touched or laid down, a minute portion of a single colony is taken up on its point; the test-tube, containing nutrient solidified in a slanting direction, is held in the left hand, the plug removed between the backs of the third and fourth fingers of the right hand, taking great care that the part of the plug which enters the tube shall not come into contact with any other object, the wire is then passed into the tube without touching the sides, and gently drawn across the medium without injuring the surface. It is now again plugged, and placed in the incubator—if gelatine, a temperature of 20° C.; if agar-agar, or potatoes that of 37° C.—is usually employed. These cultivations show certain peculiarities of growth whereby further differentiation of species may be obtained.

For puncture, the nutrient should be solidified horizontally, and the tube being held mouth downwards the infected wire is pushed upwards through the medium, right to the bottom of the tube. Here, again, differences soon become apparent: the bacteria may grow along the whole track of the needle, or only at or near surface, or at bottom only; the growth may be a fine cord or a thick column, with or without radiating processes; the colony may spread over surface or be confined near the puncture; the gelatine may be liquefied in a funnel-shaped or other depression from surface, or equally over whole surface, etc., etc. Some species produce bubbles of gas, whereas others do not.

Having in this way ascertained that several species are present, small portions of each culture may be examined microscopically, when it is possible that further differences may be observed, *e.g.*, two colonies, otherwise very similar, may be found to be a bacillus or micrococcus respectively. The growth of a colony may be observed by cultivation in the hanging drop; that is, by inoculating with a very minute speck of a colony, a small drop of gelatine or agar-agar on a cover-glass, inverted over a glass slide having a depression in centre, the cover-glass being kept in position by a minute portion of vaseline at one corner.

By these means and other special cultures, when necessary, the number of species may be ascertained. Migula states that no good drinking water contains more than 10 different species.

3. THE SPECIAL EXAMINATION OF POLLUTED WATER FOR INDIVIDUAL SPECIES OF BACILLI.

Pathogenic bacteria frequently find access to water used for drinking purposes, mainly through sewage pollution, and, unfortunately, some of these species are capable of living in water for considerable periods of time, thus giving every opportunity for spreading the disease.

It has been demonstrated that *Bacillus typhosus* is capable of existing in a living condition in sterilized water for some months, but in ordinary water its duration is more restricted; this is probably due to "crowding out" by other and more numerous water bacilli.

The cholera spirillum is rapidly destroyed when introduced into sterilized distilled water, but the addition of small quantities of nitrates or chlorides greatly increases its vitality. Most shallow wells or streams of a polluted character contain these salts in considerable traces, hence the conditions are favorable for the conservation of this bacillus, should it obtain access. The experiments hitherto made upon the vitality of cholera spirillum in ordinary potable water are not very satisfactory, but there is no doubt that it is capable of living for a considerable time. Moreover, the experience of Hamburg and Altona, already quoted, would seem to show this.

The particular bacteria which have usually to be sought are those of typhoid fever and cholera, although others, such as those of anthrax, septicæmia, or tetanus, have occasionally been found. I shall confine my remarks to the detection of the bacilli of typhoid fever and cholera.

The Typhoid Bacillus.

The difficulties surrounding the detection of this bacillus are very great, partly because it is commonly accompanied by far greater numbers of other bacilli derived from sewage, and partly because it is a disease not adapted for physiological test upon the lower animals.

On this account, an ordinary plate cultivation can scarcely ever be successful in giving a culture of the specific organism unaccompanied by other species, particularly the *Bacillus coli communis*, constantly present in human fæces. Under these circumstances, special methods must be adopted to destroy the other species, after which tests are applied to distinguish between the *B tyyhosus* and *B coli. communis*, or any other species which may occasionally be met with. The water is first introduced into phenol-broth, or the sediment obtained by filtering a large quantity of the water through a Berkefeld or Chamberland-Pasteur filter, and is cultivated in the same medium. This medium is prepared as follows:—

Some beef-broth is prepared exactly as described for gelatine-peptone, but omitting the gelatine, and making neutral instead of slightly alkaline. A number of test-tubes each receive 10 cc. of the liquid, and in addition three, six, or nine drops of the following solution:—

Pure phenol	5 grms.
" hydrochloric acid	4 "
Distilled water	100 "

These tubes are kept in the incubator at 37° C. for twenty-four hours, whereby any microbes will be destroyed. To these sterile tubes one to ten drops of the water are added, and, after admixture, replaced in the incubator. If the sediment be used, a larger quantity of phenol-broth should be employed. At the expiration of twenty-four hours, and again at forty-eight and seventy-two hours, any of the tubes which appear turbid are to be submitted to plate cultivation, and the resulting colonies carefully examined for resemblance to those of the typhoid bacillus, and if any be present these are tested by (*a*) cultivation on potatoes, (*b*) inoculation into gelatine tubes, (*c*) cultivation in milk, (*d*) indol test, and (*e*) general microscopical characters.

The plate-cultures of typhoid bacillus develop colonies of two forms. Some spread themselves out upon the surface, forming a translucent, almost transparent, film with uneven edges; radiating lines may be seen like medullary rays, and in addition are lines similar to the annular zones of wood. These colonies may become as large as one-third inch in diameter. Other colonies do not grow upon the surface, and are quite small, opaque and yellowish-gray in color, and somewhat lemon-shaped in form.

(*a*) Cultivated upon potatoes at 37° C. these interior colonies produce an almost invisible grayish-white growth after two days, but on touching the surface with a needle, it is found to be covered with a felt-like pellicle. This remarkable appearance is not always shown, depending upon the acidity, or otherwise, of the potatoes.

(*b*) Introduced into gelatine tubes by puncture, it grows chiefly on the surface, producing a thin, grayish-white surface colony. If, however, the gelatine be melted and the bacilli then added, carefully mixed, and allowed to solidify, then cultivated at 20° C. no air-bubbles appear in the mass; this is a very important test, because *B. coli communis* always produces gas-bubbles.

(*c*) Milk is sterilized by heating to 58°-65° C. for an hour or two on five to eight successive days; into this medium some of the bacilli are introduced, and placed in incubator at blood heat; after twenty-four to forty-eight hours the milk is faintly acid and not coagulated, whereas the *B. coli communis* renders it strongly acid with coagulation.

(*d*) The indol test is made, as suggested, by Kitasato. To 10 cc. of the culture in ordinary peptone broth, grown for twenty-four hours, 1 cc. of a solution of sodium or potassium nitrite (.02 grm. in 100 cc.) is added, and then a little strong sulphuric acid; the *B. coli communis* produces indol, yielding a rose or deep red coloration, a reaction not obtained from cultures of the typhoid bacillus.

(*e*) Microscopical Characters.—The typhoid bacillus is about three times as long as broad, with rounded ends, and mostly occurs singly. It is very motile, and has numerous long flagella. The *B. coli communis* is broader in proportion, and is provided with one to six flagella. For examination, it is necessary to stain the bacilli, which is carried out in the following way. A small quantity of one of the colonies having been mixed with a little water on a glass side, a minute drop

of this mixture is placed upon a sterile cover-glass, and allowed to become dry, after which it is fixed by holding over a Bunsen flame between the finger and thumb, until unpleasantly warm; the cover is then placed with the bacilli downwards upon a little aqueous solution of gentian violet for ten minutes, after which it is removed, washed with water, and examined by a high power.

The flagella are not stained in this way, but they may be stained when obtained from a young agar-agar culture by employing a mordant consisting of

Tannin solution (1 to 4 parts of water).	10 cc
Saturated solution of ferrous sulphate..	5 cc
Saturated aqueous solution of fuchsine.	1 cc
Caustic soda solution.....	1 cc

After fixing, the cover-glass is covered with a large drop of this mordant, and gently heated until it begins to steam, for about a minute; then rinsed thoroughly, if necessary, using a little absolute alcohol to remove mordant. After again allowing to dry, the following stain is used (after filteration):

Fuchsine..... ...	5 grms.
Saturated aniline water,.....	100 cc.

Let stand twenty-four hours with frequent agitation, and filter. By this means the flagella are stained pink, whilst the protoplasm of the bacilli is a very deep red.

The Spirillum of Cholera.

Koch recommends the following method for identification of cholera spirilla in water: To 100 cc. of the water add 1 grm. of peptone and 1 grm. of salt, and place in incubator at 37° C. Agar-agar plates are poured after ten, fifteen, and twenty hours, and the mixture is also examined microscopically. Any suspicious colonies, *i.e.*, those which are white and semi-transparent with well-defined margin, are examined by microscope, and also inoculated into fresh tubes for the indol reaction, the physiological test, and general microscopical appearances.

Indol Reaction.—This reaction has been described when referring to the detection of typhoid bacteria, but in the case of the cholera spirillum it is unnecessary to add sodium nitrite, because the nitrite has already been formed by reduction of nitrate present in the peptone, the addition of pure sulphuric acid (free from nitrous acid) is alone necessary. It is important, however, that the test should be applied only to a pure culture in order to eliminate the action of other bacteria. The reaction succeeds best in peptone solution (one per cent. peptone, one-half per cent. salt).

Physiological Test.—For this one and one-half m.g of the surface growth of an agar culture is mixed with 1 cc. of sterile broth, and injected into the peritoneal cavity of a guinea pig. This quantity should be a fatal dose for an animal weighing 300-350 grammes. Rapid reduction of temperature ensues, resulting in death.

Gelatine Tube Culture.—At 20° C. in puncture cultivations a thin, white thread appears along the needle-track; this thread suddenly widens out just below the surface, causing liquefaction, whilst a bright, glistening bubble of air appears in the funnel-shaped liquefied portion. The liquefaction gradually proceeds until the whole contents of the tube becomes fluid.

Microscopic Examination.—The cholera spirillum is a short, bent, rodlet, with rounded ends, frequently actively motile, and when stained may be seen to possess flagella, either singly, or in pairs at both ends.

In conclusion, great as has been the advance of this young but vigorous science, there is no doubt that we are at present but opening the clasp of a casket filled with some of the choicest gems of knowledge, each of which is enclosed in its own case, the secret spring of which can only be found by patient search, and which will be passed over untouched by the careless experimenter. Much remains to be done in the description of undescribed forms, or the more ready identification of those already known; and I venture to think the chemical side of the subject will be fruitful of much. I mean the study of the products obtained by cultivation of various bacteria in media containing traces of chemical substances of definite composition, more particularly of oxidizing and reducing agents.

To any who wish to commence the study of bacteriology, I would recommend Migula's "Introduction to the Study of Practical Bacteriology," which may be followed by Frankland's "Micro-organisms in Water," and Crookshank's "Manual of Bacteriology."—*British and Colonial Druggist.*

Points on the Making of Pills.

Mr. A. H. Miles writes to the *Bulletin of Pharmacy:*

"I have found it profitable, in my retail experience, to make a good many of the pills called for, and some of the methods followed may be of practical help to any druggist minded to make a trial. Large pills are better left to the manufacturing pharmacist. Many of the small ones, however, may be readily and quickly made, and, with but little experience, well enough made to satisfy the most fastidious.

"I am provided with a copper pill machine with three sets of double plates, from one-quarter grain to six grains. My mass diluent is pure cut-loaf sugar powdered in the store, and my excipient is Remington's for all pills which are to be white. I make just enough at a time to fill a single prescription, if the prescription calls for a size or kind not likely to be again wanted. Of the staple pills, however, I make from 500 to 2,000; usually selecting a number which is some multiple of the number my plate will cut, of the size of pills to be made. With but little experience and calculation the weight of each pipe-cut may be ascertained, and the whole mass divided by weighing or cut on the six-grain plate. I have found it very conducive to perfect uniformity to roll all my pill pipes at once, where I am making one thousand pills or less of one kind at a time. I do this by rolling between pieces of plate glass about the size of a small pill tile. Of course it might be accomplished as well by wood rollers if the surfaces were as true. These pipes will vary in length a little, even if weighed. It is not difficult, however, to get them to average the desired length with a little care. The number of pills will not vary more than two or three from this calculation. With pipes thus rolled, it is possible to cut six or even seven at once on the machine.

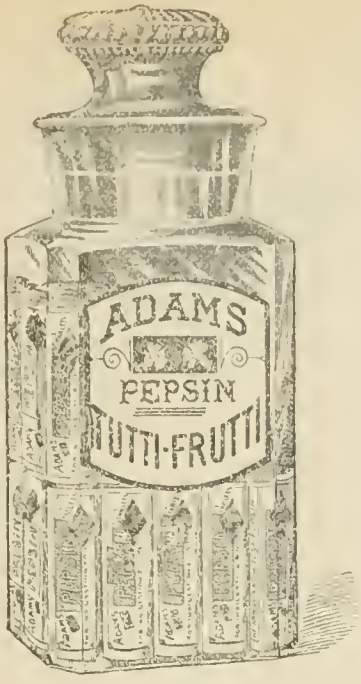
"My young men can make and finish a thousand pills an hour, and so perfect and uniform as to leave nothing to be desired. This is true of morphia in all sizes, strychnia sulphate and nitrate in the many sizes required, atropia and other pills where the medicament is much less in bulk than the diluent, and in some cases, as in quarter and half-grain morphia, where there is but little sugar required.

"The pharmaceutical manufacturers' products are cheap, and some of them are getting cheaper, but at present prices for most of the small alkaloidal pills any pharmacist who wishes to fill his leisure hours usefully can pay for his outfit, with a good margin beside, if he will undertake pill-making to a limited extent."

Estimation of Spirit of Nitroglycerin.

J. B. Nagelvoort (*American Journal of Pharmacy*) gives the following method: Cool a proper quantity of a 10 per cent. alcoholic solution of nitroglycerin to 15°C. Take 50 cubic centimetres of it; pour this quantity into two litres of water; agitate the mixture, and set it aside in a cool place over night. (In cold weather take care that the water cannot freeze and break the bottle so as to endanger your life.) The next morning siphon off the water, only leaving enough in the bottle to transfer the nitroglycerin—which has separated and lies as a syrupy fluid on the bottom—into a 50 cubic centimetre graduate, which is graduated in 0.5 cubic centimetres. Use a funnel—this insures against loss; let the funnel drain. If the 10 per cent. alcoholic solution of nitroglycerin is of the required (U.S.P.) strength, there should be about 2.5 cubic centimetres of nitroglycerin in the graduate. Since we measure, instead of weighing, our nitroglycerin, its volume has to be multiplied by its specific gravity, which is 1.600, in order to obtain its weight: $2.5 \times 1.6 = 4$. Applying a correction for the solubility of nitroglycerin in a large quantity of water (Allen says it is 1 gram in 800 cubic centimeters), it is a simple calculation to verify the fluid under examination. Dilute, according to the figures found, to pharmacopœial strength.

A Glass Jar



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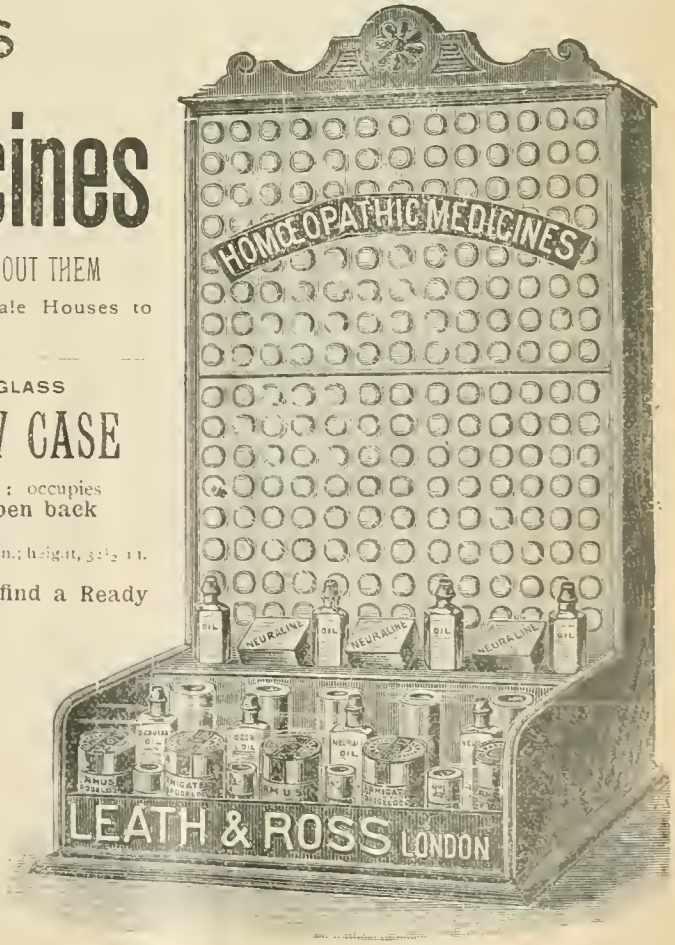

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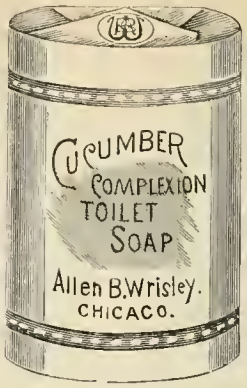

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The increased activity of public analysts, and the, to say the least, unsatisfactory condition in which the retailer is, in respect to responsibility for the sale of defective drugs, render it imperative that he should be able to test for himself the drugs most commonly "found wanting." The majority of chemists and druggists have been content to leave the care of the purity and strength of their drugs in the hands of the wholesale houses if bought from them or, if made by themselves, have trusted to accurate manufacturers to ensure permanent stability. Both of these practices ignore the deteriorating influence of time upon the stock articles, and the consequence is that in so many cases in which chemists are prosecuted we hear the plea of "had a long time in stock." We feel sure that under these circumstances a description of simple tests, sufficiently severe to keep the drugs within safe bounds, yet devoid of too fine operations, will be welcome to the average chemist and druggist. The following is such a description, comprehensible and able to be practically made use of by even those who have never performed a chemical test in their lives. Our selection will be seen to comprise the favorite targets of the public analyst. First, however, we must describe the apparatus and reagents (test solutions) required.

There will be no difficulty in utilizing a small space in the pharmacy for these requirements. Either the chemist will use his dispensing counter when not otherwise engaged, or, if space permits, will erect a screen to protect himself from external observation, and keep a small space clear for use as his "laboratory." Three or four feet of counter, with three rows of shelves fastened to the back of the screen, similar to the ordinary dispensing shelves, with a cupboard below, will be all that is requisite in this direction. If there be a small sink fitted into the counter, he will, of course, locate his "laboratory" in close proximity to this. Having chosen a site for the work, the remaining considerations are small. A few bottles holding about a pint (stoppered), the same number of 4-ounce stoppered, and of small wide-mouthed bottles, together with a small quantity of apparatus, will be all that is necessary. The bottles will hold such reagents as the user may determine upon as being in most common use for his work. The few standard solutions he may use, prepared according to the directions of the Pharmacopœia, must be kept in the larger bottles. With regard to these, the following remarks may be made. Do not make too much of any standard solution, as in certain cases deterioriation occurs with a certain amount of rapidity. This is especially the case in hyposulphite of sodium (thiosulphate), and also, to a certain extent, in other cases. Alkali solution should be kept in a corked bottle, and should be kept as nearly full as possible. If a stopper be used, this will stick in the neck and occasion much annoyance. For general reagents, such as barium chloride, silver nitrate, etc., 5 or 10 per cent. solutions may be used.

The actual apparatus used will not be very expensive. It may be either purchased direct from one of the chemical apparatus makers, or part of it may be made by the ingenious pharmacist, and the glass vessels bought from the makers.

Three pieces of wooden apparatus will be necessary—a test-tube rack, a burette stand, and a filtering stand. None of these are beyond the pocket of any pharmacist or the tools of the ingenious amateur carpenter. The simplest form of test-tube rack is an oblong block of wood about 8 inches long, 3 inches high, and 3 inches broad. A double row of holes, sufficiently large to just take the tubes, are then cut in the block by a bit of the proper size, and the rack is made. A little cutch and varnish will vastly improve it. The burette and filter stand may take any form, so long as they will hold the burette and filter and allow the vessels to stand below them. The most useful filter stand consists of two blocks of wood, about 6 inches high, with a thin piece screwed on to them about 10 inches in length, in the form of a bridge. The top of the bridge, *i.e.*, the thin piece, which should be about three inches wide, is bored with holes varying from one to two and a half inches in diameter, and thus serves as a support for funnels of various sizes, the vessels into which the liquid is to be received being easily arranged below. A good burette stand is not so easy to make, but a couple of shillings will purchase one if wished for.

Next come the water-bath and the drying oven. The water-bath is of great importance, and may be of very varied forms. A copper water-bath is rather expensive, but, of course, very useful. An easily extemporized bath is a beaker, on which rests the dish to be heated; but the most suitable of homemade baths is an ordinary iron pot. Circles of tin are cut out to cover the top of the pot, and holes of various sizes cut in these according to the size of the dishes each is intended to support. This is supported on an iron tripod stand, and a Bunsen burner completes a water-bath which will be as effectual as the most expensive copper bath.

The drying oven is even less expensive. A tin biscuit box or quinine tin is all that is needed. If the ordinary lift-off lid is exchanged for a door, which can easily be run in a pair of grooves, and the box placed on its side on the tripod, the temperature can be easily regulated by the height and distance of the flame and the distance to which the which the door is opened. A small hole may be bored in the top, in which a cork with a thermometer is inserted, and the temperature watched. So much for the metal apparatus, which can present no difficulty to the versatile pharmacist.

Glass apparatus must, of course, be bought, for but few are able to manipulate glass themselves. Of ordinary ungraduated glass and porcelain but little is necessary. A dozen test tubes, a couple of nests of beakers, a few flasks and evaporating dishes are all that are requisite. For work, where the minutest accuracy is not necessary, a very thin porcelain dish or crucible may be substituted for the more expensive platinum. If, however, the funds will allow, a platinum crucible will be found very useful. A small retort will be required—for distillation of spirits from tinctures—and also a condenser. Supports for the retort and condenser (Liebig's condenser is the best form) will be needed, and may take any form desired, or may be obtained from the maker for a very small sum. A specific gravity bottle is also absolutely necessary. This can be obtained for a very small sum, or a very thin flask with as narrow a neck as possible may be used. It should hold 1,000 grs. at least, and the point in the neck to which 1,000 grs. of water fill it at 60° F. is carefully scratched on to the glass. The number of grains which it weighs when filled with the liquid to be examined, minus the weight of the flask itself, will then be the specific gravity of the liquid (with a decimal in the proper place, of course). In the examination of ginger and mustard an exhausting apparatus is necessary. A Soxhlet tube, an apparatus which allows the percolation and recovery of the solvent to go automatically, is obtained for about half a crown, and is well worth purchasing. One or two flasks graduated to hold 1,000 grains, together with ordinary graduated glass measures, and one or two pipettes and burettes, will practically complete the whole of the apparatus required. There will, of course, be a few little things found requisite from time to time, but most of these will be, in all probability, found in the ordinary stock of the pharmacist. To go back to the reagents, the following will be found to come in useful for almost everyday use:

STANDARD SOLUTIONS.

Soda ($NaOH$).
Oxalic acid ($C_2H_2O_4$).
Hyposulphite of soda ($Na_2S_2O_3.5H_2O$).
Silver nitrate ($AgNO_3$).

ORDINARY REAGENTS.

Phenolphthalein (in proof spirit).
Barium chloride (for sulphuric acid and sulphates).
Silver nitrate (for hydrochloric acid and chlorides).
Starch water (for iodine).
Sulphuretted hydrogen (for lead).
Chromate of potassium (indicator for hydrochloric acid).
Sodium phosphate (for magnesium).
Magnesium sulphate (for phosphoric acid).
Dilute ammonia.
Dilute hydrochloric acid.
Strong hydrochloric acid.
Dilute sulphuric acid.
Strong sulphuric acid.
Nitric acid.
Oxalate of ammonia (for lime).
Ferric chloride.
Ether.

Alcohol.
Distilled water.

Other solutions may be found necessary, and may be either kept in stock or prepared as required. The elementary apparatus above described will enable the pharmacist to examine the greater proportion of his drugs which are liable to adulteration. Of course, if the pharmacist be a good analyst he will enlarge this in all probability, and will submit his drugs to a more exhaustive examination; but if not, the description of the more simple tests will afford the pharmacist who is not so skilled in analysis sufficient information to attain the end we have in view, namely, the protection of himself against prosecution under the Food and Drugs Act.

There is a mention several times in this article of the specific gravity of liquids. In the enumeration of the apparatus required we have also mentioned the specific gravity bottle. Although it is a simple operation, we may, nevertheless, explain briefly the taking of the specific gravity of a liquid. This is got by taking the net weight of the distilled water in the specific gravity bottle when full, and the net weight of the liquid to be tested filling the same bottle. Then divide the weight of the liquid by the weight of the water. We now pass on to our list of drugs.

OLIVE OIL.

For a complete analysis of olive oil, it would be necessary to apply a number of tests of great delicacy, as the adulteration in this article is very judiciously managed in some cases, especially when the oil is intended for medicinal use. However, there are several easily-applied tests which will at least give the chemist a very fair idea of its purity. The specific gravity is of the highest importance, and can easily be taken in the specific gravity bottle above mentioned.

It should never be less than .914, nor more than .918. Any higher gravity than this latter should at once condemn the oil as being adulterated, in all probability with cotton seed, sesame, or arachis oil. In addition to this, the following test, known as Conroy's, should be applied. About 6 fluid drams of the oil are mixed with ½ dram of strong nitric acid in a large porcelain dish, and heated gradually until chemical action sets up, the source of heat taken away, and the mixture is then stirred until the action ceases. If the oil is pure, a pale, straw-colored mass results, which sets solid in two hours. The other seed oils commonly used for adulterating olive oil give a deep orange red mass, which does not set like olive oil. About 2 fluid drams of the oil may be heated on the water-bath with the same quantity of alcohol, in which 1 grain of nitrate of silver has been dissolved. If so little as 5 per cent. of cotton seed oil be present, the mixture, which should be shaken from time to time, will become black in a quarter of an hour.

VINEGAR AND ACETIC ACID.

To determine whether a given sample is vinegar or not is a task which involves great difficulties, and skilled analysts often disagree on a given sample; so that the pharmacist must, of necessity, in most cases, confine himself to determining the actual quantity of real acetic acid present. The specific gravity of the vinegar should be taken—it is usually about 1.018. Then a given quantity, say 4 fluid drams, should be diluted with water until the odor is very light, a few drops of solution of phenol-phthalein added, and the liquid titrated in the usual way with standard solution of soda. The 4 drams should require 220 minims of the soda solution. It is possible, however, that the free acid may partially consist of a mineral acid—for example, sulphuric acid. In order to satisfy oneself that this is not the case, a few fluid drams should be evaporated to dryness, when the resulting residue should not refuse to dry, nor begin to char. Further, when dry, the residue should be ignited and a little hot water (distilled, of course) be added, with a drop of phenol-phthalein solution, and if the ash is alkaline, as shown by the red color, no free sulphuric acid can have been present. In the case of ordinary acetic acid, the only difference to be observed is that no appreciable ash will be obtained. In the case of vinegar, barium chloride will often give a slight precipitate, but this may be due to the presence of sulphates, not necessarily sulphuric acid itself. A precipitate in acetic acid, however, is indicative of free sulphuric acid, since no bases to combine with the acid and form sulphates should be present.

ALMOND OIL.

Not only is almond oil often adulterated, but it is very frequently entirely substituted by peach or apricot kernel oil, sometimes sold under the name of ol. amygdalæ (exot.). The specific gravity of almond oil should never be less than .914, nor more than .919, and is usually about .917. The two oils above named have gravities of .920 to .923, or even a little higher. With regard to a careful examination of this oil, the same remarks apply as in the case of olive oil. There are one or two simple tests, however, that are easily applied, and which yield useful results. A solution of zinc chloride is prepared by saturating strong hydrochloric acid with zinc oxide. Five drops of this and 10 of the oil are stirred together on a glass plate with a glass rod, and the color resulting is noted. Almond oil gives no color, peach kernel oil gives a purple brown, and apricot kernel oil gives a very similar, but a rather more muddy, brown color. This is a very useful and reliable reaction.

GINGER.

Now that a conviction has been obtained for the sale of partially exhausted *whole* ginger, pharmacists must be careful in their purchases of this drug. The best method for testing this article is a little tedious, but presents no difficulty and requires but little apparatus. A weighed quantity is dried at the water bath temperature for six hours, and the loss in weight is taken. Nearly all this is due to moisture, and it should never exceed 15 per cent. In good ground ginger it is seldom so much. One hundred grains or any convenient quantity are then placed in the Soxhlet's exhausting tube and extracted with ether—which, of course, should be kept boiling with hot water, and not by a naked flame. This is allowed to exhaust for the whole day, and the ether is then allowed

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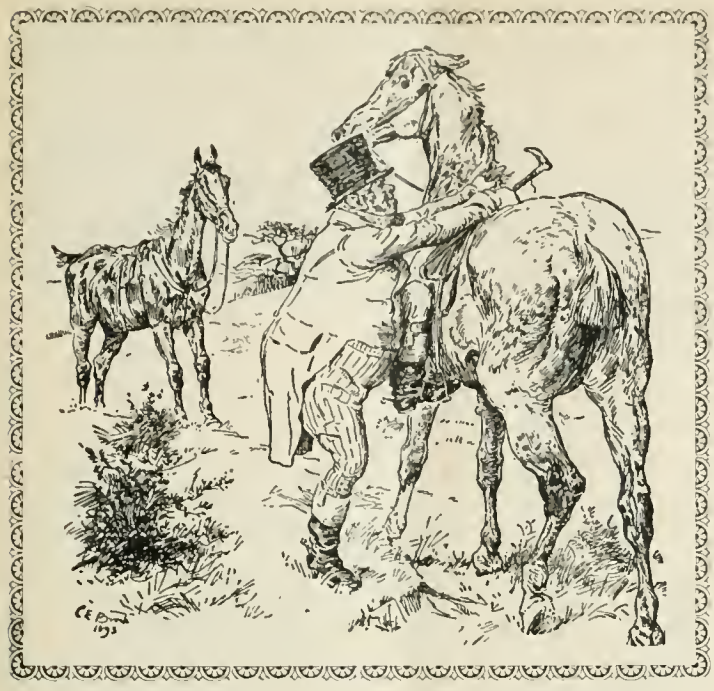

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to condense in the Soxhlet tube, and the flask taken away before it syphons over again. This saves the trouble of recovering the ether afterwards. The flask is now dried at 212°F. till of constant weight. The amount of what is extracted from the ginger thus should not be less than 3.5 per cent. (3.5 grains to the above quantity). It is generally much higher, and rarely goes down to 3 per cent. The same process should now be repeated on the same quantity of ginger, substituting alcohol for ether in the Soxhlet tube, and the alcoholic extract (which takes nearly two days to come out) should be from 2—4 per cent. (2—4 grains). A convenient quantity is then burnt (100 grains), and the ash weighed. It should lie between 3 and 4 per cent. (3—4 grains), and should never exceed 4.5 per cent. It is then treated with hydrochloric acid (1 part acid and 1 water), and raised to boiling point. The insoluble portion is filtered off, the filter paper washed, dried, and burnt, and the residue weighed. This sandy, or siliceous, matter should never exceed 1.8 cent. (100 grains = 1.8 grains), and even when it is as high as this, it is probably due to extraneous matter.

BEESWAX.

The almost daily convictions obtained for this article render it of the highest importance to be on one's guard in offering it for sale. The complete analysis of beeswax is a thoroughly scientific investigation, as very complex adulterations are now practised. There are two simple tests (both of which, however, can mislead one, when the wax is skilfully adulterated), which will, at least, give some aid to the pharmacist, especially in the case of wax adulterated with paraffin and cerasin. These, it will be remembered, are the adulterations on which practically all the convictions have been obtained, although by no means the only ones in common use. These tests are the melting point and the specific gravity. The melting point is taken in the usual method, and should be from 62°—63° C. The specific gravity is best determined by making up mixtures of spirit and water until a small pellet of the wax, evenly cut and free from air bubbles, just remains in position in the liquid without either sinking or floating. The specific gravity of the mixture of spirit and water is then taken in the specific gravity bottle as usual.

TINCTURE OF IODINE.

The chief requirement in this is the proper amount of free iodine, which should be 11 grains in the fluid ounce Consequently, not less than 21 nor more than 22 grains of pure crystallized hyposulphite of soda should be required for decolorization of the blue color produced on adding a little starch water to the ounce of tincture.

COMPOUND TINCTURE OF CAMPHOR.

"Paregoric without opium" is best detected thus: Dilute 1 fluid dram with proof spirit to 1 fluid ounce. add a few drops of perchloride of iron solution (10 grains in 100 minims). If opium is present a red color is produced. Some idea of the strength of the opium can be got by taking a known strength of opium and diluting till it gives the same tint with the chloride as the solution tested.

The presence of the anise oil in this tincture is shown by the turbidity on diluting with water. Of course, other essential oils will do this as well, but it is unlikely that the oil of anise will be left out and another oil put in.

The benzoic acid is found as follows: Render the tincture alkaline; shake with ether, which dissolves out the camphor and essential oil, and separate this solution. Now acidify to set free the benzoic acid; shake out this with ether, and separate as before. Dry the second ethereal solution, and the benzoic acid will be left.

IODIDE OF POTASSIUM.

The presence of iodate of potassium in the iodide is detected by dissolving the sample in water, adding a little of a solution of tartaric acid, when iodine will be set free and color starch blue, if iodate is present. Ten grains of iodide of potassium should give 14 grains of iodide of silver when the precipitate of the latter, obtained by adding silver nitrate to a solution of the potassium iodide, is dried and weighed.

LARD.

In analyzing this the specific gravity ought to be taken, but as this is a difficult operation for the chemist and druggist with limited apparatus we will omit it.

The chief adulterant is water, and this is sought for thus: Heat the sample for two or three hours on a water-bath. If an ounce is taken it should not lose more than 12 or 13 grains. Mineral substances are sometimes added to aid the incorporation of water. These will be shown by sinking when the lard is melted.

Cotton-seed stearin is detected in the lard by applying the following test: To one dram of the fat add 10 fluid drams of petroleum ether and one drop of strong sulphuric acid. Pure lard will give a straw or faint reddish color, which, after some time, clears and almost disappears altogether, while dark red drops separate. If the cotton-seed stearin is present there is at once blackening, or a dark brown color is produced, and this so remains for a long time.

CREAM OF TARTAR.

The common adulterants of this are starch and phosphate of calcium. The starch is easily detected by boiling with water and adding solution of iodine, with which starch gives a blue color. The phosphate is detected by boiling with very dilute hydrochloric acid and adding solutions of sulphate of magnesia and ammonia, when a white precipitate is given with the phosphate. Some samples have even had bicarbonate of soda added. The effervescence on dropping in water shows this.

PRECIPITATED SULPHUR.

From the old milk of sulphur the precipitated is distinguished by a simple test. Heat a little on the end of a knife in a flame. A residue is left with the old variety, the pure precipitated volatilizes completely.

ALCOHOL IN TINCTURES.

The amount of alcohol in tinctures is important. For most, this is shown thus: Take a certain number of fluid ounces, distil off the alcohol, and make the distillate up to the original volume, take its specific gravity, and compare with a table of alcohol and water specific gravities.

If essential oils or very volatile substances are present in the tincture, a little modification must be adopted; for instance, where benzoic acid is present, alkali can be added and then distillation effected. If essential oils are present in respectable quantities, add calcium chloride in strong solution and a little sodium phosphate. The precipitate thrown down brings the oil with it. After this distil as before.

PEPPER.

The great test for this is the total amount of ash got by burning, and the amounts soluble in water and hydrochloric acid.

Black pepper should yield total ash....	4—5 p c.
White pepper should yield total ash...	1.2 "
Black pepper should yield ash soluble in water.....	2—3 "
White pepper should yield ash soluble in water..	.5—.6 "
Black pepper should yield insoluble ash	.3—.5 "
White pepper should yield insoluble ash	.1—.3 "

The solvents are first water, then hydrochloric acid. The amount soluble in hydrochloric acid is got by difference between the total ash and the sum of the other two items given above.

METHYLATED SPIRIT IN TINCTURES.

Distil off the alcohol from the tincture, add to it a little bichromate of potassium and sulphuric acid, and digest for two hours in the cold. Dilute to ten times its volume. Distil off half; make slightly alkaline with sodium carbonate; boil down to half; acidify with acetic acid, and add silver nitrate solution. Heat just to boiling. Pure spirit gives a light brown color. methylated spirit gives a very dark brown color and silver mirror on the sides of the tube.

SPIRIT OF NITROUS ETHER.

The following is reprinted from the *Diary*, which will be found to contain other useful tests: Spt. eth. nit. should have a specific gravity of 0.840 to 0.845; should not effervesce, or but feebly, when shaken up with bicarbonate of soda. The presence of aldehyde is indicated by a brown coloration on heating with caustic potash. It should yield not much less than five times its volume of the gas on keeping. The spirit may be tested with accuracy by the nitrometer, or the following simple method. Prepare two solutions as follows:

No. 1.

℞ Sodii hyposulph ..... gr. iv.
Sodii chloridi..... gr. xl.
Potass. iodid..... gr. xx.
Aq. ad..... ... ℥ ii.

Solve.

No. 2.

℞ Spt. æther. nitros..... ℥ ii.
Acid. sulph. dil..... ℥ i.

Misce.

Place No. 1 solution in a small porcelain dish; a two-ounce ointment pot will answer the purpose. Pour into this ℥iss. of No. 2 solution, and stir till effervescence ceases. The mixture should be free from iodine color; if not so, the spirit of nitre is stronger than should be used; if no iodine has remained free after the effervescence has passed off, add another ℥ss. of the No. 2 solution. This should now produce a permanent brown color if the spirit of nitre is up to its normal strength. If a second addition of ℥ss. (total ℥iiss.) is required, it is below its normal, but not unfit for use; but if this second ℥ss. fails to produce a permanent brown color, the spirit of nitre is too weak to be sanctioned.

LIME WATER.

This should contain 10 grains of lime in the pint. Two fluid ounces, tinged blue with litmus, should require the whole of one ounce aqueous solution, containing 2¼ grains of pure crystallized oxalic acid to change the color to a red.

TINCTURE OF OPIUM.

Distil off the spirit from an ounce of the tincture, and dilute the remainder to double its volume with distilled water. Add freshly slaked lime (15 grains), shake well, and stand for half-an-hour, stirring occasionally. Filter and add 36 grain measures (40 minims) of S.V.R., and 166 grain measures (180 minims) of ether, and shake. Next add 13 grains of chloride of ammonium, shake well and frequently during an hour, and set aside for 12 hours; now follow the B.P. directions under "opium," beginning with the counterbalancing of the filters, taking, however, 66 grain measures (72 minims) of ether instead of 200; 33 grain measures (36 minims) instead of 100; and 66 grain measures of water (72 minims) as maximum limit, with which to wash the bottle, instead of 200. The crystals obtained should weigh 3.3 (roughly, 3⅓ grains).—*British and Colonial Druggist.*

The Stability of Sublimate Solutions.

Vignon pointed out some time ago that 1 per mille solutions of mercuric chloride rapidly decreased in strength, and lost, therefore, their antiseptic power in contact with the air. Tanret now urges that pure air has nothing to do with the matter, and does not cause any precipitation of the mercury. Vignon has taken up the subject again, and now demonstrates that Tanret's conclusions are correct, and that the decomposition is due to traces of alkali, derived either from the water or the glass in which the solutions were kept, and to dust and organic impurities from the air.—*Bulletin.*

Wintergreen Oil.

The artificial methyl-salicylate is constantly gaining ground, although its opponents in America are doing all that lies in their power to bring it into discredit. As an instance of this, we may mention that an attempt was recently made to create a panic among the manufacturers of chewing gum, who use a considerable quantity of the oil, by spreading about a report that the use of the artificial product caused inflammation of the eyes. It was stated that the "chemicals" contained in the synthetical oil were the source of the mischief. Any one who has the least idea what so-called natural and artificial wintergreen oil are will at once agree with us that such statements are the outcome of cross ignorance.

According to the new U.S.P., both the genuine wintergreen oil—which is hardly to be met with any longer in commerce—and the oil prepared from sweet birch, consist almost entirely of methyl-salicylate, presupposing always that both are pure, and not, as is frequently the case, adulterated. Now, can there be any doubt that methyl-salicylate is the only active constituent of both oils? If, then, in view of the fact that the two natural oils are scarcely to be met with in commerce in a state of reliable purity, a pure methyl-salicylate, prepared from pure salicylate acid as used daily in medicine—that is to say, a product of definite chemical composition, $CH_3C_7H_5O_3$—is recommended, the question arises: How is it possible that any one with the least inkling of chemistry can talk of "noxious chemicals" which are said to be present in wintergreen oil. It is impossible to argue against such foolish assertions as are palmed off upon the American consumer.—*Schimmel's Report.*

Bismuth Oxysalicylate.

By D. B. Dott.

This salt is usually simply described as bismuth salicylate, and there is probably no objection to the practice, as the normal salt (if it exists) is immediately decomposed by water into the basic salt and free acid, so that there is little likelihood of it obtaining a place in medicine. The formula of the basic salt is $BiC_7H_5O_3(OH_2$, or $BiO.C_7H_5O_3.H_2O)$. This salicylate has within recent years come considerably into demand for the treatment of gastric catarrh and some intestinal disorders. Like most of the basic salts of bismuth, it is not perfectly white, but possesses a perceptibly grayish hue. It should yield mere traces to ether. This is a most important test.

I have examined a sample commended on account of its whiteness, which gave 47.23 per cent. to ether. Such a salt is irritating and objectionable. When dissolved in two or three parts of boiling hydrochloric acid, it should yield plenty of crystals on cooling. On complete ignition there should remain 61.31 per cent. of oxide, or very near it. If any of the oxide becomes reduced to metal by the ignition, it must, of course, be oxidized by nitric acid or otherwise. The salt must be free from chloride and nitrate, which it is very liable to contain when prepared by the method of double decomposition usually recommended. I have tried the most approved processes of this kind, but with quite unsatisfactory results. Addition of glycerin, of sodium chloride, and of ammonium chloride has been recommended to prevent precipitation of basic salt of the stronger acid. Causse has given detailed instructions for the preparation of the salicylate, using a large proportion of sodium chloride to prevent formation of oxychloride of bismuth. If the figures as given in the "Year Book" are correct, the amount of hydrochloric acid is insufficient to dissolve the oxide (40 c.c. acid to 35 grammes oxide of bismuth). However, I have followed the process exactly, and also tried some obvious modifications of the same, with the result that oxychloride was invariably present in very considerable quantity, salicylate being correspondingly deficient.

In one experiment a large amount of uncombined salicylic acid was found in the product. In the experiment, which was conducted exactly as described in the abstract so far as that could be understood, the resulting compound contained 0.2 per cent. free salicylic acid, and left 94.5 per cent. on ignition, an amount which is far in excess of the proper quantity. These experiments tend to explain the defects of some of the preparations found in the market, and shows the necessity for testing this salt, which will probably take a permanent place in the "materia medica." The tests above described will be found sufficient to practically indicate the purity of the preparation.—*Pharmaceutical Journal and Transactions.*

Peyotline, a New Alkaloid.

At a recent meeting of the Berlin Physiological Society Professor L. Lewis gave an account of some experiments made with an alkaloid obtained from a North Mexican cactus called "Peyotl," which *Nature* briefly reports. This plant has an intoxicating action, and in large doses produces sleep and a state of nervous excitation accompanied by a so-called "power of prophesying," similarly attributed to the sulphurous exhalations of the temple at Delphi. Small doses of the alkaloid when given to frogs produced tetanic cramps and a greatly increased reflex irritability, analogous to strychnine, but with this difference—that by carefully apportioning the dose the effects were permanent for several days. Professor Lewin regarded the new alkaloid as specially adapted to further the study of the nature of tetanus. He further stated that he has found alkaloids with powerful actions in many species of *Cactus* hitherto regarded as harmless by botanists, notably one closely resembling curare.—*Chemist and Druggist.*

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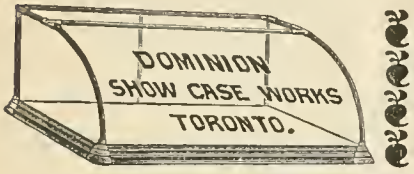

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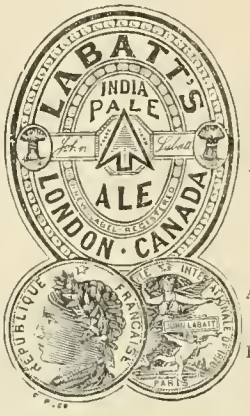

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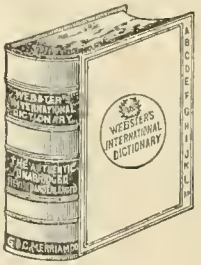

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ANTISEPTIC DRESSING FOR WOUNDS.

R Hamamelis Extract	℥iv
Glycerine	℥ii
Acid Carbolic	gtt xii.

GUAIACOL WINE.

Guaiacol, crystallized	150 grains.
Sherry wine	2 pints.

Mix and dissolve.

OINTMENT FOR CHAPPED HANDS.

Menthol	gr. xv.
Salol	gr xxx.
Ol. olivæ	℥ss.
Lanolini	℥iss.

M.

Apply night and morning, rubbing in well.

BUTTER OF PHOSPHORUS.

The *Bulletin de Pharmacie* suggests the following as a substitute for cod-liver oil in hot weather :

Fresh butter	17½ ounces.
Potassium iodide	4 grains.
Potassium bromide	15 grains.
Sodium chloride	2 drams.
Phosphorus	¼ grain.

About one-third of an ounce is to be taken daily, spread on bread.—*National Druggist.*

AROMATIZED COD-LIVER OIL.

Dietrich gives the following formula for aromated cod-liver oil :

Essence of lemon	50 parts.
Essence of neroli	20 parts.
Essence of English peppermint	10 parts.
Vanilline	1 part.
Conmarin	1-10 part.
Cod-liver oil	10,000 parts.

Dissolve the conmarin and vanilline in the essential oils, with the aid of a very gentle heat, and mix the solution with the cod-liver oil.

TOOTH PASTE.

Powdered pumice	℥j.
" cuttle-fish bone	℥iss.
" myrrh	℥ij.
" orris root	℥iiss.
" precipitated chalk	℥vj.
" alum	℥j.
Curd soap	℥viij.
Glycerine	℥xij.
Rose water	℥x.
Otto of rose	℥j.
Oil of cloves	℥ij.

Shred the soap, mix it with the glycerine, and heat on a water-bath till uniform ; then add the water, and mix with the powders, finally adding the perfume.

PASTE FOR VARNISHED SURFACES.

The *British and Colonial Druggist* recommends the folllowing :

Rice starch	2 ounces.
White glue	1 ounce.
Acetic acid	4 drams.
Oil of cloves	20 minims.

Dissolve the glue in cold water, then boil. Mix the starch with a little cold water and pour into the boiling glue. Finally add the acetic acid and oil of cloves.

VARNISH FOR COPPER.

To protect objects made of copper, and to guard them against oxidation, the *Revue de Chimie industrielle* recommends varnishing them with the following :

Carbon disulphide	1 part.
Benzine (benzol)	1 part.
Oil of turpentine	1 part.
Hard copal	1 part.
Methylic alcohol	2 parts.

The journal quoted declares this varnish to be very resisting, and to protect the metal perfectly, especially if two or three coats of the varnish or lacquer have been given.—*National Druggist.*

SOLUBLE ESSENCE OF TOLU.

Balsam Tolu	3 fl. oz.
Alcohol	6 " "
Glycerine	12 " "
Water, Alcohol of each enough to make	32 " "

Dissolve the tolu in the mixture of the alcohol and glycerine with the aid of heat ; then add 12 fl. oz. of water, and set aside to cool. Pour off the milky liquid from the resinous precipitate, rub it with a little powdered pumice, and filter, washing the filter with enough of a mixture of 1 part alcohol and 2 parts water to make two pints.

This is said to make an excellent syrup of tolu when mixed with simple syrup.

LIQUID PATENT LEATHER DRESSINGS.

(1)—Aniline black	1 part.	
Camphor	2 parts.	
Shellac	24	"
Wood alcohol	73	"
(2)—Glue	16 parts.	
Logwood (in chips)	32	"
Indigo	1	"
Tragacanth	2	"
Glycerin	16	"
Vinegar	128	"
Water	64	"

Boil, strain, and bottle.

(3)—Shellac	2 parts.	
Ammonia water	1	"
Water	6	"
Aniline black	to color.	
Water	to make 16 parts.	

Boil the first three ingredients together, until the shellac is dissolved ; then add the aniline dye and sufficient water to make a pint.

Hager gives the following formula :

Gallic acid	2 parts.
Borax	2 "
Extract logwood	1 "
Aniline black	4 "
Ammonia water	4 "
Hot water	20 "
Shellac varnish	800 "

The shellac varnish is prepared as follows :

Borax	2 parts.
Rain water	45 "
Powdered shellac	6 "

Heat the borax and water to boiling, and add the shellac in divided portions, stirring well all the while ; when cold, strain.—*Merck's Market Report.*

A New Ointment Base.

Eggert and Haeckel, of Berlin, are introducing a new basis for ointments into the trade, under the name of myronin, which is claimed to possess many advantages. Eggert gives the following account of its composition : All fats that contain fatty acids and glycerine combined are liable to rancidity. Fatty or waxy bodies, in which the fatty acids are combined with higher alcohols, keep far better, and are not liable to rancidity to any extent. Such alcohols are cholesterin, ceryl, myricyl, and dodecatyl alcohols. Cholesterin is found to a certain extent in wool-fat, but the relatively difficult purification, etc., render it somewhat expensive. The vegetable wax of *Copernicia cerifera* contains myricyl alcohol, and certain whale oils, such as doegling oil, contains dodecatyl alcohol. He claims that doegling oil is a very suitable body for an ointment basis on two grounds: (1) That it is not liable to quick rancidity; (2) It is easily absorbed into the tissues, without provoking any irritability. The necessity of finding a suitable method for combining this oil with vegetable wax is obvious, and the following method is that adopted : If the free fatty acids which the wax always contains are neutralized by alkalies, the wax is in such a condition that it will easily mix with considerable quantities of other fats or water. In fact, a preparation in which the wax and water are in proportions of 1 to 5 is of the consistency of soft paraffin. After the wax and the doegling oil have been freed from all albuminoids, and have been purified by filtering and washing, the free acids of the wax are neutralized with weak, hot alkaline carbonate solution in the calculated quantity. Doegling oil is then added in sufficient quantity to give the required consistency, as found by experience, and the whole is mixed to a homogeneous mass by mechanical means. The normal product contains 12.5 per cent. of water, but this can be raised or lowered at will. —*British and Colonial Druggist.*

Purification of Ether.

M. Eckenberg states that approximately pure ether for analytical purposes can be obtained from commercial ether by adding to the latter 5-10 per cent. of a liquid paraffin, that boils above 300° C., and distilling at 40° to 50°. The alcohol and oxidation products are retained in the retort by the paraffin, whilst the water, if much be present, will form a layer beneath the latter. Acids and other objectionable impurities may be removed by this method which is also applicable for purifying chloroform, acetone, etc. Subsequent heating to 120° expels the impurities from the paraffin, and renders it fit for further use.—*Chem. Zeit.*

A STRIKE OF DOCTORS.—Five hundred medical men in Hungary have threatened to go on "strike." They want better State control and higher fees.

Photographic Notes

Mounting Difficulties.—A few days ago I stepped into an amateur's workroom, and found him sweating over mounting difficulties. The mount laid on the table, carefully pencil-marked to indicate where the print should come, and my friend was busy at work applying glue to the edges of the print, "so that it would stay where it was placed." Now, there are several reasons why this is a bad procedure. Glue is hard to spread, and sets very quickly, but it also often contains substances injurious to the print, to say nothing of the fact that it soon decomposes and degrades the print. As a mountant, nothing that I know of is better than thick starch for albumen prints, and starch and fine flour for aristos. In making it up I use an aluminium cup, which does not rust, however long the starch may be left in it. A few drops of oil of cloves will preserve it for a week. I always strain the starch through a salt bag, and it should be thick enough to require considerable pressure to force it through. Now the prints are drawn out of the last wash water on to a large pane of glass, and allowed to drain for a few moments. I then take a towel and roll it up compactly, and roll it over my prints, forcing the moisture out, which is absorbed by the towel. This provides a squeegee which is so flexible that it enters every indenture of the uneven pile of prints. It also dries the prints so that they readily take the paste. My paste brush has the bristles set in hard rubber, which holds them securely. The mountant must be thoroughly rubbed into the pores of the paper. Now comes the rub of placing them on the mount. If it is cabinets, you soon accustom yourself to place them just so far from the sides and top, and you mount so near the edge that little difficulty is experienced. In case of plain mounts, 10 by 12, or larger, greater care is needed, as, for the best effects, you must have plenty of margin around your prints. I will mention two methods. Instead of a glass plate place your prints on oilcloth to receive the paste. This can be readily washed off and rolled up, and laid away when not in use. Now cut a piece of stiff brown paper the size of the mounts to be used, and draw on it in pencil mark an outline the exact size of the print, and just where you will want it on the mount. Now lay the print, face down, on the brown paper inside this outline. The pasted side is up. Stand the mount exactly on the upper edge of the paper, and gradually lower it, and gently press over the print. Now lift up your mount, and then the print is in its place. But the better way is to train the eye to the exact measurement of distance. Take up your pasted print and hold it in both hands, being careful not to touch the corners nor the edges. Hold it before you over the mount, about an inch from its surface, note carefully; is it the proper distance from the upper edge, is it parallel with the upper edge, is it equal distance from the two outer edges? If so, gently lower. Should you find a slight mistake, slip the print into place without delay. In the final rubbing down I use a brown, bibulous paper, which can be used over and over again, and does not wrinkle nor curl up. That's all there is of it. Above all, let me say to the amateur, train the eye, fight clear of makeshifts. Photography should become more and more a thing of yourself. A trained eye, a trained hand, and brain and soul, even, for I believe that is where the feeling of art resides. Your photography will bless you in proportion as it makes you more perfect.—*J. H. Bates, in Photography.*

Something New in Photography.—It has been observed that when formic aldehyde is added to the gelatine in solution a compound is formed which is insoluble in water, but which can be melted by heat and made into films. This peculiarity has been taken advantage of by Schering's works, and two patents have been obtained in England by Mr. August Zimmerman to cover the manufacture of a new photographic film. The consists of a layer of the formalated gelatine, upon which is spread the ordinary color-sensitive gelatine-emulsion, or the hardened gelatine may itself be sensitized or dipped in emulsion. It either case it is obvious that the invention is one of great utility, as the gelatine film can be used for all the purposes for which paper films are now used.—*Chemist and Druggist.*

Photo-engraving with Silver Salts.—At the last meeting af the Royal Photographic Society, Mr. Leon Warnerke gave a demonstration of a process for photo-etching, partly dependent on sensitive silver salts instead of bichromated gelatine. A negative of the original is taken in the usual way through a screen. After the negative is developed and dried, it is given a safe edge. The next step in the process is to place the negative in contact with a sheet of paper coated with gelatine pigmented with a sensitive silver salt, such as the bromide, and making an exposure, the image being developed with pyro-ammonia. After development, the image is pressed or squeegeed in contact with a copper plate previously polished with snakestone and charcoal, the paper backing and the soluble gelatine, together with the unaltered silver salt, being removed by hot water in the same manner as a carbon image is developed. After washing and treatment with alcohol, the plate, when dried, is ready for etching with perchloride of iron in the ordinary way. The process, Mr. Warnerke pointed out, might be adapted to photogravure purposes by commencing with a transparency instead of a negative, and transferring the developed negative in the plate grained with asphaltum, the subsequent operations being as usual. The process is an outcome of the negative paper process brought out by Mr. Warnerke in 1880, and described by him in the paper he read before the society in 1886.—*Journal of the Society of Arts.—Phar. Journal.*

Photographic Contrivances.—J. A. White says he once chanced to place a common eye-glass lens in front of the diaphragm of a single combination lens, and expected to be surprised at the distortion of the picture. The resulting image was, of course, less in size, but he could discover no other difference in the two images. An interior made with that combination of an achromatic landscape lens of eleven-inch focus and an eye-glass lens of seventeen-inch focus showed no curved lines, and the title on a sheet of music taken at a distance of fifteen feet showed up clear and distinct; nor could he distinguish any diffraction of colors. It is best, he states, to have a set of multiple foci lenses, but with the aid of a pasteboard tube (made by rolling up a sheet of paper), his original achromatic lens, a positive spectacle lens of sixteen inches and a negative lens (for near-sightness), he has lenses of seven, eleven, fourteen, and twenty inches. Usually the original lens is preferable, but there is many a time when trying to compose a view on a small plate that the seven-inch lens, covering a half-size plate, comes in handily, or when a distant view loses all detail with the usual lens the "twenty-inch" is very convenient. A front extension is needed for the camera with the "twenty-inch," but is easily made of pasteboard. The achromatic piece is used in front of the lens with the others behind, and the mounting is easily done. Another contrivance is for taking stereoscopic views with one lens. A front board is fitted with one hole for a lens, the centre of the hole to be 1⅝ inch to one side of the centre of the board and equidistant from top to bottom. In use the lens is in position to command one of the halves. After exposing that half of the plate the slide is replaced in the holder, and the front board is reversed in order to expose the other part of the plate. The camera must be clamped rigid that the plate may not be displaced between exposures.—*Photographic Times.*

Sensitive Coating for Half-tone Etching.—In a late number of the *Photo-Beacon* Mr. Le Page gives a formula which has stood the test of three years, and which he recommends very highly:

Glue clarified (Le Page's)	oz.	2
Water	fl. oz.	2
Ammonium bichromate (Merck's)	gr.	120
Water	fl. oz.	2
Albumen, dried	gr.	120
Water	fl. oz.	4
Chromic acid, c. p.	gr.	10

According to the author this prints quickly, develops easily, and gives every detail there is in the negative; the general results being of a high average.

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Safeguards Against Deterioration of Stock.

By Leon C. Fink.

A large proportion of the materials which constitute the stock of an average drug store are particularly prone to deterioration, and painstaking pharmacists are required to exercise more than ordinary circumspection to prevent exposure of sensitive pharmaceuticals to pernicious influences. In fact, the art of affording such protection is quite as important as the ability to select drugs and prepare medicines properly.

A complete tabulation of all the chemical and physical changes which can modify and injure pharmaceutical preparations is not within the scope of this article, but it is deemed apposite to mention a few exemplary forms of deterioration which will serve to suggest to the minds of intelligent pharmacists others which can occur from similar causes.

The importance of maintaining a uniform temperature, through day and night, in a pharmacy, is apt to be overlooked. Remember that your stock is largely made up of fluid preparations holding chemical substances in solution. These are reasonably permanent at a normal temperature, but as the temperature lowers the solvent power of the menstruum is reduced and precipitation of the less soluble ingredients occurs. Results grow gradually worse as the temperature goes down, until disaster comes in the freezing of aqueous solutions and consequent bursting of bottles.

Change of temperature may also cause loss and annoyance from breakage of demijohns through expansion or contraction of liquid contents. If a demijohn is filled with cold liquid, tightly corked, and subsequently transferred to a warm room or climate, the liquid will expand with rise of temperature and blow out the cork or burst the vessel. Tightly corked demijohns filled with hot liquids frequently collapse under atmospheric pressure as the contents cool and contract. It is, therefore, a safe rule never to fill such large glass containers completely, but rather leave an ample cushion of air to allow for expansion and contraction.

Sunlight can do incalculable damage to chemicals, pharmaceuticals, plush goods and toilet articles in general, unless special precautions are taken to prevent its injurious action. Calomel is not altered by the atmosphere if kept in the dark, but, when exposed to sunlight, it gradually turns gray or black, indicating decomposition. Santonin acquires a yellow color by exposure to sunlight. Silver nitrate becomes gray or black on exposure to sunlight in the presence of organic matter. Sunlight darkens yellow mercurous iodide and yellow mercuric oxide in consequence of their partial reduction. Bright green scales of soluble ferric phosphate and soluble ferric pyrophosphate turn dark on exposure to sunlight. Red mercuric iodide is permanent in the air if kept in the dark, but acquires a brownish tint by exposure to sunlight. Quinine bisulphate readily acquires a deep brownred color on exposure to direct rays of sunlight. Quinine sulphate and quinine hydrochlorate are gradually colored yellow by similar exposure. Ferric salts in solution with sugar are reduced to ferrous salts by action of sunlight. Many volatile oils are injured by prolonged exposure to atmospheric oxygen and sunlight, while some are eventually rendered worthless and entirely unfit for use. Perfumes exposed to direct rays of sunlight rapidly degenerate and soon acquire a rank odor; it is apparent, therefore, that they should not be habitually presented in showwindows.

Drugs and chemicals are frequently injured by absorbing moisture or carbonic acid, or both, from the atmosphere. Solids that absorb moisture from the air are called *hygroscopic*. Solids which absorb moisture from the air, and become liquid, or dissolve therein, are called *deliquescent*. Crystalline substances which part with their water of crystallization on exposure to air, thereby losing their crystalline form, are called *effloresccnt*.

On exposure to atmosphere, caustic soda absorbs water and is liquefied, subsequently solidifying and becoming efflorescent. This change is caused by the absorption of carbonic acid and the crystallization and efflorescence of the sodium carbonate thus formed. Potassa also deliquesces and absorbs carbonic acid under similar exposure. Chlorinated lime absorbs moisture and carbonic acid from damp atmosphere, with loss of valued properties and formation of a plastic mass; it should, therefore, be kept in a closely covered jar and stored in a cool, *dry* place.

Lime becomes "air slacked" by exposure to ordinary atmosphere, absorbing water and carbonic acid, and being converted into hydrate and carbonate of calcium. Carbonate of potassium is extremely deliquescent in humid air, forming a colorless or yellowish alkaline liquid of an oily appearance. Chloride of zinc, acetate of potassium, and chloride of calcium are also very deliquescent salts which require special protection.

Powdered extracts should be carefully protected from exposure to moist air, in small bottles with mouths wide enough to admit the blade of a spatula. Selected corks should be used, and the bottles should be kept in a cool place—never in a current of hot air from a stove or furnace.

It is particularly essential that granular effervescent salts be kept in securely corked bottles, for, if access of air be permitted, sufficient moisture will soon be absorbed to cause the acid to act upon the carbonated base and gradually liberate carbonic acid. The valued effervescent properties of the preparations will thus be irretrievably lost.

If clear lime water be exposed to the influence of air, a pellicle of calcium carbonate is formed upon the surface; this film sinks to make room for another, until, finally, nearly all the lime is rendered insoluble and the supernatant liquid is comparatively valueless. It is essential, therefore, that a goodly excess of lime be kept in the bottom of the lime-water bottle to maintain the strength of the solution. The container should be kept in a cool place, as cold water dissolves more lime than hot water.

Solution of lead subacetate is decomposed on exposure to air, or on being mixed with water containing air in solution, a white precipitate of insoluble carbonate of lead being formed. When freshly made, it should be divided into two- or four-ounce bottles, kept full and tightly sealed until required for use. Liquor potassa and liquor soda also possess marked affinity for carbonic acid, and should be preserved in securely-stoppered bottles.

Quinine sulphate, like some other alkaloidal salts, does not "lose strength" by exposure to ordinarily dry atmosphere, but rather loses water of crystallization by evaporation and becomes correspondingly richer in quinine. It should be borne in mind also that effloresced carbonate of sodium is stronger than the normal crystallized salt in proportion to the amount of water it has lost. Sulphate of soda, commonly called Glauber salt, contains more than half its weight of water of crystallization, nearly all of which is dissipated on exposure to dry atmosphere, leaving a dry, white powder which is correspondingly richer salt. Sulphate of zinc also effloresces slowly in dry air.

Atmospheric oxygen causes many undesirable changes in chemicals and pharmaceuticals. On exposure to air the color of syrup iodide of iron slowly changes to yellow and subsequently to brown, the change of color proceeding from the exposed surface downward. This color can sometimes be bleached and the syrup restored to its original appearance, but here is a case where an ounce of prevention is worth a pound of cure. Keep the syrup in small bottles, full, and well corked. Syrup bromide of iron is, of course, similarly affected.

Certain fixed oils will remain unchanged for a great length of time in air-tight vessels, but, when exposed to the atmosphere, they attract oxygen and ultimately become concrete. The tendency of linseed oil to dry or harden on exposure to air is typical in the extreme. Exposed to the air, lard absorbs oxygen and becomes rancid; it should, therefore, be kept in well-closed vessels, or procured fresh when required for use; in the rancid state it irritates the skin, and sometimes exercises an injurious reaction upon substances mixed with it.

Phosphorus absorbs oxygen from the atmosphere with sufficient avidity to cause rapid combustion and necessitate its preservation under water. Prolonged exposure to air gradually transforms light green ferrous carbonate into the familiar red-brown "sub-carbonate of iron," which is ultimately little more than ferric oxide,

and can undergo no further change from similar influences.

Not content with ravaging the pharmacist's stock, this belligerent element exhibits a remarkable propensity, in the presence of moisture, for rusting his spatulas and other metallic utensils.

Serious pecuniary loss by evaporation of volatile solids like camphor results from exposure of these substances in ordinary open wooden drawers. Menthol is extremely volatile, and should, therefore, be kept in securely corked bottles to prevent loss. Exposed to the air, carbonate of ammonium partially volatilizes, becomes opaque, and crumbles into a white powder. Iodine is most advantageously kept in securely closed glass receptacles; most ordinary wares are liable to be attacked or permeated by it. Chloral evaporates slowly when exposed to dry atmosphere. Powdered drugs which depend upon volatile constituents for medicinal virtue, like cinnamon, cloves, orris root, and valerian, should, so far as practicable, be kept in bottles, or some other comparatively air-tight container

Stronger water of ammonia should be kept in strong, glass-stoppered bottles, which should be stored in a cool place and opened with extreme care. When warm, the liberated gas frequently forces the stopper out with considerable violence, and many accidents resulting in injury to the sight of operators are on record.

Pressed roots and herbs are more convenient to handle, occupy less space, and are better preserved than crude drugs in bulk form. Furthermore, the danger of error is materially reduced by handling neatly pressed, wrapped, and labelled packages.

Examine your stock of dandelion and rhubarb roots occasionally to be sure that purchasers do not find worms in them and form unfavorable impressions of you and your business methods.

Cantharides should be thoroughly dried and kept in securely closed containers. The vapor of chloroform quickly kills insects which infest cantharides, and their destruction can be accomplished by placing a small quantity of chloroform in a wide-mouth bottle, or other open vessel, upon the surface of the infested drug and securely closing the container. The heavy chloroform vapor will then gradually sink through the drug and destroy the insects.

The modern method of marketing chlorinated lime in hermetically sealed parcels is not only a source of convenience, but affords protection which serves to prevent loss of the loosely combined chlorine upon which the value of the preparation as a disinfectant is almost entirely dependent. The disagreeable odor of chlorine which clings to the hands of the operator is also avoided.

Charcoal is used in medicine chiefly for its absorbent and disinfectant properties. Owing to its absorbent powers, it should not be unnecessarily exposed to the atmosphere of a laboratory or pharmacy, lest it be thus rendered unfit for medicinal purposes.

Fine sponges should be kept in a closed show-case or drawer. Carriage and slate sponges, which are frequently allowed to become soiled and lend an untidy appearance to the store by rolling about in a window or on the floor, can be conveniently kept assorted and conspicuously displayed in the wire basket with separate compartments for different sizes.

Oxalic acid should not be kept in paper parcels, since it soon renders the paper fragile, and in being thus scattered about may, by admixture with other drugs, cause loss of life. Owing to its external resemblance to Epsom salt, and its very poisonous nature, the substances should not be kept in similar drawers. The practice of keeping them in containers of different style and safely remote from each other is less likely to lead to accidental confusion.

Remember that heated atmosphere usually accumulates near the ceiling, and preparations subject to injury by exposure to elevated temperature should not be kept on upper shelves. Several cases are on record wherein chlorinated lime, which is known to greedily absorb water and carbonic acid from a humid atmosphere, was put up in securely corked and sealed bottles, which were then placed upon an upper shelf until the heat of summer, or a very warm apartment, had liberated sufficient gas to cause a startling explosion, sometimes followed rapidly by a succession of similar ones and a cloud of dust.

Lard ointments, cerates, and in fact nearly all animal fats, are liable to grow rancid by prolonged exposure to air, this change in many cases being accelerated by heat and light. Every precaution should, of course, be taken to avoid such decomposition; but when rancidity is apparent, preparations should never be dispensed, for, instead of having the mild demulcent properties which constitute their chief value, they become irritant and entirely unfit to serve as vehicles for medicinal substances to be applied to the skin. Ointment jars should invariably be thoroughly cleaned and freed from rancidity before refilling with fresh stock.

With ordinary drug-store arrangement it is scarcely practicable to entirely protect tinctures and fluid extracts from injurious effects of air, light, and changes of temperature, but any provision which tends to prevent precipitation from these causes is commendable. The stock of tinctures should be placed in charge of one capable employé who should be held responsible for its condition. Haste is apt to make serious inroads upon accuracy in preparing pharmaceuticals.

The danger from leaving bottles insecurely corked is apparent when we consider that, if a fluid extract prepared from a menstruum composed of diluted alcohol be exposed to the air in an open vessel, the alcohol will evaporate much more rapidly than the water. By this change of character in the menstruum, certain resinous constituents of the drug frequently become insoluble and are deposited, rendering the fluid more or less turbid, and materially lessening its medicinal value. Collodion loses ether by evaporation, and becomes comparatively worthless.

The deterioration which can occur in a single drug store from causes indicated here command the constant attention of the manager, and much greater is the problem which confronts the wholesale manufacturer, who must prepare a great variety of products in large quantities, to be distributed in the market in all directions, where they are expected to remain unchanged through the extreme variations in temperature which characterize the severe winters in the north, and the torrid summers in the south; and no less injurious is the improper exposure to which pharmaceuticals are frequently subjected in temperate climates.—*Bulletin of Pharmacy.*

To Hide the Taste of Chloral.

Dr. E. Holland calls attention to the fact that the taste of chloral hydrate is effectively masked by lemonade. Two or three drachms of the syrup should be placed in a tumbler with about 2 ounces of water. If to this is added about 2 ounces or so of gaseous (bottled) lemonade, the mixture may be drunk at leisure, and the soporific action of the drug is in no way impaired.—*Medical Bulletin.*

Our Latest Importations.

ALUM, in bbls.
ALUM POWDERED, in bbls.
FINEST EPSOM SALTS, in bbls.
FINEST SUBLIMED SULPHUR, in bbls.
ROLL SULPHUR, in bbls.
CHLORIDE LIME, in casks.
SALTPETRE CRYSTALS, in kegs.
SALTPETRE POWDERED, in casks.
POWDERED HELLEBORE, in bbls.
GLYCERINE, in tins.
WHITE CASTILE SOAP, bars.
WHITE CASTILE SOAP, cakes.
PARIS GREEN, in casks and drums.
GIBSON'S CANDIES, full assortment.

Your orders Solicited.

Jas. A. Kennedy & Co.

IMPORTERS,

LONDON, - ONTARIO.

and 8 oz. Toilet Water.

SEELY, THE AMERICAN PERFUMER

NEW PERFUMES

TOILET WATER ASSORTMENT.

VIOLET,
ROSE,
HELIOTROPE,
LAVENDER,
ORANGE,
LILAC,
MAGNOLIA.

SWEET MIGNONETTE,
LILLIAN RUSSELL,
MARIPOSA LILY,
MAGNOLIA BLOSSOM.

THESE NEW PRODUCTS OF OUR LABORATORY ARE VERY LASTING AND FRAGRANT.

Seely Manufacturing Company,

DETROIT, MICHIGAN. ESTABLISHED IN 1862. WINDSOR, ONTARIO.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to March 10th, 1895.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal	$4 05	$4 25
Methyl	1 90	2 00
ALLSPICE, lb	13	15
Powdered, lb	15	17
ALOIN, oz	40	45
ANODYNE, Hoffman's bot., lbs	50	55
ARROWROOT, Bermuda, lb	45	50
St. Vincent, lb	15	18
BALSAM, Fir, lb	40	45
Copaiba, lb	65	75
Peru, lb	3 75	4 00
Tolu, can or less, lb	65	75
BARK, Barberry, lb	22	25
Bayberry, lb	15	18
Buckthorn, lb	15	17
Canella, lb	15	17
Cascara, Sagrada	25	30
Cascarilla, select, lb	18	20
Cassia, in mats, lb	18	20
Cinchona, red, lb	60	65
Powdered, lb	65	70
Yellow, lb	35	40
Pale, lb	40	45
Elm, selected, lb	20	21
Ground, lb	17	20
Powdered, lb	20	28
Hemlock, crushed, lb	18	20
Oak, white, crushed lb	15	17
Orange peel, bitter, lb	15	16
Prickly ash, lb	35	40
Sassafras, lb	15	16
Soap (quillaya), lb	13	15
Wild cherry, lb	13	15
BEANS, Calabar, lb	45	50
Tonka, lb	1 50	2 75
Vanilla, lb	6 00	7 50
BERRIES, Cubeb, sifted, lb	30	35
powdered, lb	35	40
Juniper, lb	7	10
Ground, lb	12	14
Prickly ash, lb	40	45
BUDS, Balm of Gilead, lb	55	60
Cassia, lb	25	30
BUTTER, Cacao, lb	75	80
CAMPHOR, lb	60	68
CANTHARIDES, Russian, lb	1 40	1 50
Powdered, lb	1 50	1 60
CAPSICUM, lb	25	30
Powdered, lb	$ 30	35
CARBON, Bisulphide, lb	17	18
CARMINE, No. 40, oz	40	50
CASTOR, Fibre, lb	20 00	20 00
CHALK, French, powdered, lb	10	12
Precip., see Calcium, lb	10	12
Prepared, lb	5	6
CHARCOAL, Animal, powd., lb	4	5
Willow, powdered, lb	20	25
CLOVE, lb	16	17
Powdered, lb	17	18
COCHINEAL, S.G., lb	40	45
COLLODION, lb	75	80
Cantharidal, lb	2 50	2 75
CONFECTION, Senna, lb	40	45
Creosote, Wood, lb	2 00	2 50
CUTTLEFISH BONE, lb	25	30
DEXTRINE, lb	10	12
DOVER'S POWDER, lb	1 50	1 60
ERGOT, Spanish, lb	75	80
Powdered, lb	90	1 00
Ergotin, Keith's, oz	2 00	2 10
EXTRACT, Logwood, bulk, lb	13	14
Pounds, lb	14	17
FLOWERS, Arnica, lb	15	20
Calendula, lb	55	60
Chamomile, Roman, lb	30	35
German, lb	40	45
Elder, lb	20	22
Lavender, lb	12	15
Rose, red, French, lb	1 60	2 00
Rosemary, lb	25	30
Saffron, American, lb	75	80
Spanish, Val'a, oz	1 00	1 25
GELATINE, Cooper's, lb	75	80
French, white, lb	35	40
GLYCERINE, lb	14	16
GUARANA	3 00	3 25
Powdered, lb	3 25	3 50
GUM ALOES, Cape, lb	18	20
Barbadoes, lb	30	50
Socotrine, lb	65	70
Asafœtida, lb	40	45
Arabic, 1st, lb	65	70
Powdered, lb	75	85
Sifted sorts, lb	40	45
Sorts, lb	25	30
Benzoin, lb	50	1 00
Catechu, Black, lb	9	20
Gamboge, powdered, lb	1 20	1 25
Guaiac, lb	50	1 00
Powdered, lb	70	75
Kino, true, lb	1 25	
Myrrh, lb	$ 45	$ 48
Powdered, lb	55	60
Opium, lb	4 25	4 50
Powdered, lb	6 00	6 50
Scammony, pure Resin, lb	12 80	13 00
Shellac, lb	45	48
Bleached, lb	45	50
Spruce, true, lb	30	35
Tragacanth, flake, 1st, lb	90	1 00
Powdered, lb	1 10	1 15
Sorts, lb	45	75
Thus, lb	8	10
HERB, Althea, lb	27	30
Bitterwort, lb	27	30
Burdock, lb	16	18
Boneset, ozs, lb	15	17
Catnip, ozs, lb	17	20
Chiretta, lb	25	30
Coltsfoot, lb	20	38
Feverfew, ozs, lb	53	55
Grindelia robusta, lb	45	50
Hoarhound, ozs., lb	17	20
Jaborandi, lb	45	50
Lemon Balm, lb	38	40
Liverwort, German, lb	38	40
Lobelia, ozs, lb	15	20
Motherwort, ozs, lb	20	22
Mullein, German, lb	17	20
Pennyroyal, ozs, lb	18	20
Peppermint, ozs., lb	21	25
Rue, ozs., lb	30	35
Sage, ozs., lb	18	20
Spearmint, lb	21	25
Thyme, ozs., lb	18	20
Tansy, ozs., lb	15	18
Wormwood, oz	20	22
Yerba Santa, lb	38	44
HONEY, lb	13	15
HOPS, fresh, lb	20	25
INDIGO, Madras, lb	75	80
INSECT POWDER, lb	25	28
ISINGLASS, Brazil, lb	2 00	2 10
Russian, true, lb	6 00	6 50
LEAF, Aconite, lb	25	30
Bay, lb	18	20
Belladonna, lb	25	30
Buchu, long, lb	50	55
Short, lb	20	22
Coca, lb	35	40
Digitalis, lb	15	20
Eucalyptus, lb	18	20
Hyoscyamus	20	25
Matico, lb	70	75

Senna, Alexandria, lb	$ 25	$ 30
Tinnevelly, lb	15	25
Stramonium, lb	20	25
Uva Ursi, lb	15	18
LEECHES, Swedish, doz	1 00	1 10
LICORICE, Solazzi	45	50
Pignatelli	35	40
Grasso	30	35
Y & S—Sticks, 6 to 1 lb., per lb.	27	30
" Purity, 100 sticks in box	75	75
" Purity, 200 sticks in box	1 50	1 50
" Acme Pellets, 5 lb. tins	2 00	2 00
" Lozenges, 5 lb. tins	1 50	1 75
" Tar, Licorice, and Tolu, 5 lb. tins	2 00	2 00
LUPULIN, oz	30	35
LYCOPODIUM, lb	70	80
MACE, lb	1 20	1 25
MANNA, lb	1 60	1 75
Moss, Iceland, lb	9	10
Irish, lb	9	10
MUSK, Tonquin, oz	46 00	50 00
NUTGALLS, lb	21	25
Powdered, lb	25	30
NUTMEGS, lb	1 00	1 10
NUX VOMICA, lb	10	12
Powdered, lb	25	27
OAKUM, lb	12	15
OINTMENT, Merc., lb. ½ and ½	70	75
Citrine, lb	45	50
PARALDEHYDE, oz	15	18
PEPPER, black, lb	22	25
Powdered, lb	25	30
PITCH, black, lb	3	4
Bergundy, true, lb	10	12
PLASTER, Calcined, bbl. cash	2 25	3 25
Adhesive, yd	12	13
Belladonna, lb	65	70
Galbanum Comp., lb	80	85
Lead, lb	25	30
POPPY HEADS, per 100	1 00	1 10
ROSIN, Common, lb	2½	3
White, lb	3½	4
RESORCIN, white, oz	25	30
ROCHELLE SALT, lb	25	28
ROOT, Aconite, lb	22	25
Althea, cut, lb	30	35
Belladonna, lb	25	30
Blood, lb	15	16
Bitter, lb	27	30
Blackberry, lb	15	18
Burdock, crushed, lb	18	20
Calamus, sliced, white, lb	20	25
Canada Snake, lb	30	35
Cohosh, black, lb	15	20
Colchicum, lb	40	45
Columbo, lb	20	22
Powdered, lb	25	30
Coltsfoot, lb	38	40
Comfrey, crushed, lb	20	25
Curcuma, powdered, lb	13	14
Dandelion, lb	15	18
Elecampane, lb	15	20
Galangal, lb	15	18
Gelsemium, lb	22	25
Gentian or Genitan, lb	9	10
Ground, lb	10	12
Powdered, lb	13	15
Ginger, African, lb	18	20
Po., lb	20	22
Jamaica, blchd., lb	27	30
Po., lb	30	35
Ginseng, lb	3 00	3 25
Golden Seal, lb	75	80
Gold Thread, lb	90	95
Hellebore, white, powd., lb	12	15
Indian Hemp	18	20
Ipecac, lb	1 30	1 50
Powdered, lb	1 60	1 70
Jalap, lb	55	60
Powdered, lb	60	65
Kava Kava, lb	40	90
Licorice, lb	12	15
Powdered, lb	13	15
Mandrake, lb	13	18
Masterwort, lb	16	40
Orris, Florentine, lb	30	35
Powdered, lb	40	45
Pareira Brava, true, lb	40	45
Pink, lb	75	80
Parsley, lb	30	35
Pleurisy, lb	20	25
Poke, lb	15	18
Queen of the Meadow, lb	$ 18	$ 20
Rhatany, lb	20	30
Rhubarb, lb	75	2 50
Sarsaparilla, Hond, lb	40	45
Cut, lb	50	55
Senega, lb	55	65
Squill, lb	13	15
Stillingia, lb	22	25
Powdered, lb	25	27
Unicorn, lb	38	40
Valerian, English, lb. true	20	25
Virginia, Snake, lb	40	45
Yellow Dock, lb	15	18
RUM, Bay, gal	2 25	2 50
Essence, lb	3 00	3 25
SACCHARIN, oz	1 25	1 50
SEED, Anise, Italian, sifted, lb	13	15
Star, lb	35	40
Burdock, lb	30	35
Canary, bag or less, lb	5	6
Caraway, lb	10	13
Cardamom, lb	1 25	1 50
Celery	30	35
Colchicum	50	60
Coriander, lb	10	12
Cumin, lb	15	20
Fennel, lb	15	17
Fenugreek, powdered, lb	7	9
Flax, cleaned, lb	3½	4
Ground, lb	4	5
Hemp, lb	5	6
Mustard, white, lb	11	12
Powdered, lb	15	20
Pumpkin	25	30
Quince, lb	65	70
Rape, lb	8	9
Strophanthus, oz	50	55
Worm, lb	22	25
SEIDLITZ MIXTURE, lb	25	30
SOAP, Castile, Mottled, pure, lb	10	12
White, Conti's, lb	15	16
Powdered, lb	25	35
Green (Sapo Viridis), lb	15	25
SPERMACETI, lb	55	60
TURPENTINE, Chian, oz	75	80
Venice, lb	10	12
WAX, White, lb	50	75
Yellow	40	45
WOOD, Guaiac, rasped	5	6
Quassia chips, lb	10	12
Red Saunders, ground, lb	5	6
Santal, ground, lb	5	6

CHEMICALS.

ACID, Acetic, lb	12	13
Glacial, lb	45	50
Benzoic, English, oz	20	25
German, oz	10	12
Boracic, lb	15	16
Carbolic Crystals, lb	18	25
Calvert's No. 1, lb	2 10	2 15
No. 2, lb	1 35	1 40
Citric, lb	50	55
Gallic, oz	10	12
Hydrobromic, diluted, lb	30	35
Hydrocyanic, diluted, oz. bottles doz	1 50	1 60
Lactic, concentrated, oz	22	25
Muriatic, lb	3	5
Chem. pure, lb	18	20
Nitric, lb	10½	13
Chem. pure, lb	25	30
Oleic, purified, lb	75	80
Oxalic, lb	12	13
Phosphoric, glacial, lb	1 00	1 10
Dilute, lb	13	17
Pyrogallic, oz	35	38
Salicylic, white, lb	1 00	1 10
Sulphuric, carboy, lb	2½	2¾
Bottles, lb	5	6
Chem. pure, lb	18	20
Tannic, lb	90	1 10
Tartaric, powdered, lb	30	32
ACETANILID, lb	90	1 00
ACONITINE, grain	4	5
ALUM, cryst., lb	1¾	3
Powdered, lb	3	4
AMMONIA, Liquor, lb., .880	10	12
AMMONIUM, Bromide, lb	80	85
Carbonate, lb	14	15
Iodide, oz	35	40
Nitrate, crystals, lb	40	45
Muriate, lb	12	16
Valerianate, oz	$ 55	$ 60
AMYL, Nitrite, oz	16	18
ANTINERVIN, oz	85	00
ANTIKAMNIA	1 25	1 30
ANTIPYRIN, oz	1 00	1 10
ARISTOL, oz	1 85	2 00
ARSENIC, Donovan's sol., lb	25	30
Fowler's sol., lb	13	15
Iodide, oz	50	55
White, lb	6	7
ATROPINE, Sulp. in ⅛ ozs. 80c., oz	5 00	5 00
BISMUTH, Ammonia-citrate, oz	35	40
Iodide, oz	50	55
Salicylate, oz	30	35
Subcarbonate, lb	2 25	2 40
Subnitrate, lb	2 00	2 10
BORAX, lb	9	10
Powdered, lb	10	11
BROMINE, oz	8	13
CADMIUM, Bromide, oz	20	25
Iodide, oz	45	50
CAFFEINE, oz	50	55
Citrate, oz	50	55
CALCIUM, Hypophosphite, lb	1 50	1 60
Iodide, oz	95	1 00
Phosphate, precip., lb	35	38
Sulphide, oz	5	6
CERIUM, Oxalate, oz	10	12
CHINOIDINE, oz	15	18
CHLORAL, Hydrate, lb	1 00	1 10
Croton, oz	75	80
CHLOROFORM, lb	60	1 90
CINCHONINE, sulphate, oz	25	30
CINCHONIDINE, Sulph., oz	15	20
COCAINE, Mur., oz	5 75	7 00
CODEIA, ¼ oz	80	90
COLLODION, lb	65	70
COPPER, Sulph., (Blue Vitrol) lb.	6	7
Iodide, oz	65	70
COPPERAS, lb	1	3
DIURETIN, oz	1 60	1 65
ETHER, Acetic, lb	75	80
Sulphuric, lb	40	50
EXALGINE, oz	1 00	1 10
HYOSCYAMINE, Sulp., crystals, gr.	25	30
IODINE, lb	4 75	5 50
IODOFORM, lb	6 00	7 00
IODOL, oz	1 40	1 50
IRON, by Hydrogen	80	85
Carbonate, Precip., lb	15	16
Sacch., lb	30	35
Chloride, lb	45	55
Sol., lb	13	16
Citrate, U.S.P., lb	90	1 00
And Ammon., lb	70	75
And Quinine, lb	1 50	3 00
Quin. and Stry., oz	18	30
And Strychnine, oz	13	15
Dialyzed, Solution, lb	50	55
Ferrocyonide, lb	55	60
Hypophosphites, oz	25	30
Iodide, oz	40	45
Syrup, lb	40	45
Lactate, oz	5	6
Pernitrate, solution, lb	15	16
Phosphate scales, lb	1 25	1 30
Sulphate, pure, lb	7	9
Exsiccated, lb	8	10
And Potass. Tartrate, lb	80	85
And Ammon Tartrate, lb	80	85
LEAD, Acetate, white, lb	13	15
Carbonate, lb	7	8
Iodide, oz	35	40
Red, lb	7	9
LIME, Chlorinated, bulk, lb	4	5
In pakages, lb	6	7
LITHIUM, Bromide, oz	30	35
Carbonate, oz	30	35
Citrate, oz	25	30
Iodide, oz	50	55
Salicate, oz	35	40
MAGNESIUM, Calc., lb	55	60
Carbonate, lb	18	20
Citrate, gran., lb	35	40
Sulph. (Epsom salt), lb	1¾	3
MANGANESE, Black Oxide, lb	5	7
MENTHOL, oz	55	66
MERCURY, lb	75	80
Ammon (White Precip.)	1 25	1 30
Chloride, Corrosive, lb	1 00	1 10
Calomel, lb	1 00	1 10
With Chalk, lb	60	65

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the *special consideration* of the Business Notices.

We have pleasure in calling attention to the advertisement of the Royal Oil Company of Toronto, who are offering special lines at close prices. If in immediate need of any of the goods quoted, or will want them shortly, we would advise placing an order at these prices.

Our readers will again recognize the advertisement of the Powell & Davis Co. on another page. Davis' Fly Felts have become a household word throughout the Dominion. The hundreds of bales of Davis' Felts shipped annually to this city alone is sufficient to satisfy any one as to the popularity of Davis' Fly Felts. Powell & Davies are making a reduction in price. See their adv.

We have been using Piso's remedy for catarrh on two cases of long standing, and find it even more effective than it is claimed to be. Each of us have suffered much from catarrh, and had given up a cure after spending large amounts of money for doctors' bills, but now we feel safe to say we expect a permanent cure in a short time; in fact, my catarrh only troubles me a little, and then only when I take a fresh cold. My brother had the worst kind of a case, and the change in him is so great that his friends speak about it, and he tells them that Piso's remedy for catarrh did it.

A. M. ALLEY & Co.,
WM. T. ALLEY, Mgr.
2133 Market St., St. Louis, Mo.

Books and Magazines.

In the March number of *Frank Leslie's Popular Monthly* the wonderful story of the life and inventions of Thomas Alva Edison is set forth, in an article by Henry Tyrrell, with the apparent purpose of contrasting an actual living hero, a modern conqueror of science, with the dark and sinister shadow of Napoleon, as projected anew by the curious contemporary revival of his sanguinary legend. The paper is accompanied with some interesting illustrations, including new portraits of Edison, of his parents, wife, children, and scientific collaborators.

The Delineator for April is called the spring announcement number, and is an excellent specimen of this most popular woman's magazine. Supplementary to the regular issue of patterns there is a timely article on "Bicycling," with illustrations of costumes, which will interest all lovers of the wheel. The papers on "The Voice," which were interrupted by the illness of the author, are resumed; and there is begun a most practical series on "Preservation and Renovation," the first instalment treating of "The Putting Away and Care of Furs." Mrs. Roger A. Pryor writes very entertainingly on "The Etiquette of First Calls and Introductions," giving the accepted usages and formulas; and the second paper on "The Experiences of a Training School Life" increases the interest already felt in the subject.

The American Pharmaceutical Association.

The best reason that can be given for becoming a member of the American Pharmaceutical Association is *because it pays.*

There is no initiation fee. The annual dues are $5, payable after the election of a member, or preferably when application is made. There is no other expense connected with becoming and continuing a member than this $5 per annum.

The American Pharmaceutical Association was founded forty-three years ago, the first meeting being held in the city of Philadelphia on October 6th, 1852.

Its aim was to unite the educated and reputable pharmacists and druggists of America in securing such objects as would elevate pharmacy. By united action it has fully justified the designs of its founders; its roll contains the names of over 1,700 members, drawn from all parts of North America, some of the most distinguished exponents of the art and science having been enrolled.

Its objects appeal to no clique, section, or faction, but it is in the broadest sense a national body. It has from the first encouraged and fostered State Pharmaceutical Associations, receiving delegates from these bodies and extending to them aid, whenever such was sought.

Among the many benefits received in return for annual dues the first to be mentioned is the handsomely bound volume of about 1,000 pages, issued annually gratis to members. It is called "The Proceedings," but this term but remotely expresses the character and value of the work. True, it contains the proceedings of the annual meeting, which are of much interest to members, but it contains, what is of greater value, the interesting discussions and extemporaneous remarks as they drop from the lips of America's most eminent pharmacists and authors, besides all papers read during the meeting, embracing every class of subjects with which the pharmacist is concerned.

Of great practical value to every retail pharmacist is the report on Progress of Pharmacy, which is published in the volume of proceedings. This feature alone will give as great returns as can be derived from five dollars invested in works of reference. The formulas are well worth the price.

With the continued growth of pharmacy in this country it has become of the utmost importance for all organized bodies to work in harmony, and it is earnestly hoped that the members of State Associations will strengthen the parent body, and, in turn, receive the benefits which this powerful organization can bestow, by becoming members of the national association. This may be done by filling out an application, which can be obtained from Dr. H. M. Whepley, 2342 Albion place, St. Louis, Mo., chairman committee on membership. Return the application with $5 to Mr. Geo. W. Kennedy, Pottsville, Pennsylvania, secretary committee. The 1895 meeting will be held in that world-renowned health resort, prosperous city, and hospitable convention place, Denver, Colorado, August 14 to 21.

Reaction of Pure Ether.

H. Thomas (*Berichte d. phil. Gesel.*) finds it impossible to obtain ether that will not restore the color to fuchsin decolorized by sulphurous acid, and show an alkaline reaction with moistened red litmus paper. He comes to the conclusion that these are properties of chemically pure ether, and his opinion is confirmed by the fact that ether obtained in Pictet's laboratory by freezing behaves in a similar manner. The production of bodies thus formed by the action of air on pure ether, such as acetic acid, acetaldehyde, peroxide of hydrogen, etc., is not prevented by the addition of two per cent. of alcohol.

HOW IS THIS?

Something unique even in these days of mammoth premium offers is the latest effort of Stafford's Magazine, a New York monthly of home and general reading.

The proposition is to send the Magazine one year for one dollar, the regular subscription price, and in addition to send to each subscriber fifty-two complete novels during the twelve months; one each week.

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Cajuput, lb	1 60	1 70
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Caraway, lb	2 75	3 00
Cassia, lb	1 75	1 80
Cedar	55	85
Cinnamon, Ceylon, oz	2 75	3 00
Citronelle, lb	80	85
Clove, lb	1 00	1 10
Copaiba, lb	1 75	2 00
Croton, lb	1 50	1 75
Cubeb, lb	2 50	3 00
Cumin, lb	5 50	6 00
Erigeron, oz	20	25
Eucalyptus, lb	1 50	1 75
Fennel, lb	1 60	1 75
Geranium, oz	$1 75	$1 80
Rose, lb	3 20	3 50
Juniper berries (English), lb	4 50	5 00
Wood, lb	70	75
Lavender, Chiris. Fleur, lb	3 00	3 50
Garden, lb	1 50	1 75
Lemon, lb	2 00	2 10
Lemongrass, lb	1 50	1 60
Mustard, Essential, oz	60	65
Neroli, oz	4 25	4 50
Orange, lb	2 75	3 00
Sweet, lb	2 75	3 00
Origanum, lb	65	70
Patchouli, oz	80	85
Pennyroyal, lb	2 50	2 75
Peppermint, lb	4 25	4 50
Pimento, lb	2 60	2 75
Rhodium, oz	80	85
Rose, oz	7 50	11 00
Rosemary, lb	70	75
Rue, oz	25	30
Sandalwood, lb	5 50	7 50
Sassafras, lb	75	80
Savin, lb	1 60	1 75
Spearmint, lb	3 75	4 00
Spruce, lb	65	70
Tansy, lb	4 25	4 50
Thyme, white, lb	1 80	1 90
Wintergreen, lb	2 75	3 00
Wormseed, lb	3 50	3 75
Wormwood, lb	4 25	4 50
FIXED OILS.		
CASTOR, lb	9	11
COD LIVER, N.F., gal	1 25	1 30
Norwegian, gal	2 00	2 10
COTTONSEED, gal	1 10	1 20
LARD, gal	90	1 00
LINSEED, boiled, gal	60	63
Raw, gal	58	61
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Drug Reports.

Canada.

Providence, in the shape of plenty of snow and cold weather, has somewhat interfered with business during the past month, but there is no reason of complaint for this season of the year. The report from those lines of business, in which March 4th is a settling day, has been very favorable this year, and all along the line prospects are bright. These indications will, no doubt, have a set back, pending the elections; therefore it is to be hoped these will come on and be got over speedily, for they have a very unsettling effect on trade.

Bals. Peru is scarce, consequently has advanced fully $1 per pound.

Camphor has made a triple advance lately, and, as the season of large consumption is near at hand, higher prices are looked for.

Cod liver oil (Norway) maintains its high price. It will not likely be lower for a season, with a good prospect of being still higher.

Cocaine muriate higher.

Salicylic acid and salicylate of soda are lower in price.

Green acacias are all tending higher.

Cubeb berries easier.

Castor oil still very low.

Croton oil dearer.

Nitrate silver, another decline.

Acid citric lower; tartaric firmer.

Boschees' German Syrup, and Green's August Flower samples have been withdrawn from the market.

Gibbon's toothache gum has been reduced to 65c. per dozen.

England.

LONDON, February 27, 1895.

There has been some improvement in the drug market during the month, and an extraordinary rise in the price of cod liver oil. Old 1894 oil has doubled in value within a few weeks, and the new season's oil is quoted at a phenomenal figure.

Citric acid is firmer on the spot, as lemon juice is dearer.

Camphor is in a similar position, owing to advance of raw material.

Saffron is moving upward, and cascarilla bark is advancing.

Sulphate of ammonia is lower.

Chlorate of potash continues on the down grade.

Oil of aniseed is also easier.

During the month there has been a complete drop in salicylic acid and salicylates.

Ordinary drugs have been very quiet, and chemicals remain, for the most part, unchanged in value.

Kind Words from Cape Breton.

"I think the druggists of Canada are deeply indebted to you for the trouble you take in supplying the trade with such an excellent periodical."

A. D. MACGILLVARY.

Sydney, C.B.

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VII. TORONTO, APRIL, 1895. NO. 4

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

Subscription, $1 per year in advance.

Advertising rates on application.

The CANADIAN DRUGGIST is issued on the 15th of each month, and all matter for insertion should reach us by the 5th of the month.

New advertisements or changes to be addressed

Canadian Druggist,

20 Bay St. TORONTO, ONT.

EUROPEAN AGENCY:

BROCK & HALIFAX, Aldermary House, Watling St., LONDON, E.C., ENGLAND.

CONTENTS.

Amendments to the Pharmacy Act.
Acknowledgments.
DRUG CLERKS' COLUMN.—Do the one thing well —The Valued Apprentice.
Patent Medicines in Japan.
Boric Acid in the solubility of certain Phenols.
TRADE NOTES.
Montreal Notes.
Manitoba Notes.
Prince Edward Island.
College of Pharmacy Examinations.
Should Doctors Dispense?
Pharmacy in England.
Airol.
Improved Syrup of Iodide of Iron.
CORRESPONDENCE—The Qualifications of Apprentices.
Sealing Wax.
A Short History of Scales and Weights.
Chances for Enterprising Druggists.
How to join the American Pharmaceutical Association.
The Pri-mo Syringe.
Wake up!
Resemblance between the Reaction of the Alkaloids and Acetanilid.
EDITORIAL.—Mutually Interested—A Good Line.
What Next?
New Remedies and Chemicals.
How to make the Business Pay.
Borax in Pharmacy.
The Liquefaction of Hydrogen.
Physicians' Supply Houses.
An Important Decision.
Cinchona Gathering in Peru.
Compound Syrup of Hypophosphites.
FORMULARY.
Antidiphtheritic Pastilles.
PHOTOGRAPHIC NOTES.
The Amateur Photographer.
Show-Bottle Colors.
The Conceited Student.
Proposed Regulation of Patents.
Determination of the Purity of Liquids.
Alkaloids and Alkaloidal Salts.
BUSINESS NOTICES.
BOOKS AND MAGAZINES.
DRUG REPORTS.

Amendment of the Pharmacy Act.

The council of the college, headed by Mr. Mackenzie, acting president in the absence of Mr. Petrie, has achieved a signal victory in regard to the bill introduced by the Hon. G. W. Ross at the present session of the Local Legislature to make permanent the clause exempting the manufacturers and dealers in patent or proprietary medicines from the restrictions of the Pharmacy Act.

This clause, as proposed to be made permanent, and which has been in force as a renewal and experimental legislative clause during the past two years, reads as follows: "Nothing in this Act contained shall extend to, interfere with, or affect the making, vending, or dealing in any patent or proprietary medicine, and the said Act shall be read as if this section had always formed part of the said Act."

To the portion of the clause exempting the vendor from the restrictions of the Act the council offered no opposition, as general dealers have always been exempt in so far as the sale of non-poisonous proprietary compounds is concerned; but to the part freeing the manufacturer of any patent or proprietary compound, whether it contained any scheduled poison or not, from the restrictions of the Act, they most strenuously objected; as they argued, and rightly so, we believe, that such an exemption would wipe out in actual practice the schedule to the Act, as it would permit the sale of every article there mentioned, provided it was put up under the guise of a proprietary medicine. They claimed that if it was improper for a qualified druggist to sell these things, which they were competent to handle, it was assuredly improper that incompetent persons should be specially privileged by legislative enactment to do so; that if the welfare of the community was sought, the consumer should be safeguarded somewhat, as otherwise he would be entirely at the mercy of every designing quack-medicine vendor; that under such legislation the class of remedies designed for the treatment of private diseases and those which were suggestively advertised for immoral and criminal purposes would be sure to increase; that other countries, instead of granting unrestrained license, as this bill proposed to do, passed restrictive or prohibitive legislation regarding them; and that, while our Pharmacy Act had always left the question an open one, it had never been designed by its framers that any one other than wholesale druggists, doctors, and veterinary surgeons should be specially exempt from the provisions of the Act. These and many other reasons were urged upon Sir Oliver and the members of his cabinet by Messrs. Mackenzie and Clark, who, with Messrs. Karn and Hargreaves, waited upon the government by special appointment to consider the proposed bill and give their views upon it. As indicating what the council would be willing to have passed as an amendment to the Act, the committee presented a typewritten copy of the following to Sir Oliver:

"The Pharmacy Act is amended by adding thereto the following sections:

"The Pharmacy Act is amended by adding thereto the following section:

"Nothing in this Act contained shall extend to, interfere with, or affect the making or dealing in any patent or proprietary medicines. Provided always that on the petition of three licensed medical practitioners (or the Council of the Ontario College of Pharmacy) the Provincial Board of Health shall cause to be made a full and sufficient analysis of such patent or proprietary medicine by an analyst or other competent person appointed by the Lieutenant-Governor in Council, and if on such analysis it appears that such patent or proprietary medicine contains any of the poisons mentioned in any of the schedules to this Act to an extent that renders their use in the doses prescribed dangerous to health or life the said Board of Health shall give notice to the manufacturer or proprietor of such

patent or proprietary medicine, or to his agent or representative in the Province of Ontario, of the result of such analysis, and of a time and place at which such manufacturer or proprietor may be heard before said board in opposition thereto.

"The Board of Health shall forthwith, after the date so appointed for such hearing of said manufacturer or proprietor, submit the report of said analyst, the objections (if any) made to same by said manufacturer or proprietor, together with their report thereon, to the Lieutenant-Governor in Council, and on the receipt of such report, if same approves of the report of said analyst, notice thereof shall be given in the Ontario *Gazette*, and thereafter the provisions of this Act with regard to poisons shall apply to such patent or proprietary medicine."

The bill had received its second reading before the conference was held with the Ministers, yet to show the confidence which the government had in the wisdom of the limitations proposed by the druggists, they introduced the measure for its third reading, word for word, as proposed to be amended.

We most heartily congratulate the council upon this result, as the position now secured definitely gives power to interfere with any improper proprietary remedy, and at the same time precludes any unfairness to the maker. The strict intention of our Act, the protection of the consumer of medicine, is the essence of it, and we are much mistaken if the protective tenor of it will not strengthen our Act with the public, and enable us in future to secure desired amendments without having to contest organized opposition.

Acknowledgments.

Our thanks are due to Frederick Stearns & Co., Detroit, Mich., for a neat and substantial blotter pad for desk use, a very necessary addition to our editor's sanctum.

We are in receipt of a very useful and handsome leather-bound memorandum and price book from Messrs. Wm. A. Gill & Co., Columbus, Ohio, manufacturers of seamless tin boxes, specially adapted for druggists' use.

A prospectus of "Monograph of Fluid Extracts, Solid Extracts, and Oleoresins," by Joseph Harrop, Ph.G., has been received from the publishers. The work will contain 200 pages, bound in cloth, interleaved, and sold at $2.00. The author will be remembered by our readers as having written a "Monograph on Flavoring Extracts," which has been very favorably received, and highly commended by pharmacists and the trade press.

Some people are busy only when they are busy talking.

When Push and Caution go into partnership Success is finally going to get into that firm.

Drug Clerks' Column.

Do the One Thing Well.

Digression is just as dangerous as stagnation in the career of a young man in business. There is absolutely no position worth the having in business life today to which a care of other interests can be added. Let a man attempt to serve the interests of one master, and if he serves him well he has his hands and his head full. There is a class of ambitious young men who have what they choose to call "an anchor to the windward" in their business. That is, they maintain something outside of their regular position. They do this from necessity, they claim. One position does not offer sufficient scope for their powers or talents; does not bring them sufficient income, and they are "forced," they explain, to take on something in addition. I have known such young men But so far as I have been able to discern, the trouble does not lie so much with the position they occupy as with themselves. When a man turns away from the position he holds to outside affairs, he turns just so far away from the sure path of success. To do one thing perfectly is better than to do two things only fairly well. It was told me once, of one of our best known actors, that outside of his stage knowledge he knew absolutely nothing. But he acted well—so well that he stands to-day at the head of his profession, and has an income of five figures several times over. All-around geniuses are rare—so rare that we can hardly find them. It is a pleasant thing to be able to talk well on many topics; but, after all, that is but a social accomplishment. To know one thing absolutely means material success and commercial and mental superiority. I dare say that if some of our young men understood the needs of the positions they occupy more fully than they do, the necessity for outside work would not exist.—*Edward W. Bok, in the Cosmopolitan.*

The Valued Apprentice.

The apprentice whose value is truly esteemed is he who realizes that he is a factor in the business in which he is engaged, and who strives to become important in his minor sphere. His aim is to perform the duties assigned him as well as his abilities will allow. He slights nothing, does nothing as a matter of form, or as something which he must get through with. His honesty is unimpeachable, his willingness to work commendable, and his zeal in the service of his employer noticeable. He may only be getting two dollars a week, but never shows that he is merely giving value for the pay he gets. He is strictly methodical, obedient, and receptive of the instruction imparted. His carefulness is a prominent feature in the performance of his duties, and he inspires confidence by exhibiting it only when he is certain of his ground. He takes no risks by assuming what he is not sure of, preferring rather to be honest than to be considered smart. His business conduct is above reproach, and his habits such as bring credit to the institution with which he is connected. In short, he thoroughly earns the recommendation he receives.

Patent Medicines in Japan.

Japan, which has so adapted itself to European manners, and with so much advantage, as may readily be noted in the successes in its struggle with the Chinese, has a very prominent patent medicine, out of which, we learn, the proprietor has made the usual fortune which seems to be the reward of any one who can get a patent medicine to go. The medicine is called "The Thousand Gold Medicine," at least that is the English translation of the Japanese title. The method of advertising it is unique. He employs hundreds of young men, whom he dresses in a uniform consisting of a handsome coat, an oiled paper cloak, leggings, high clogs, and an umbrella bearing the trade mark of the manufacturer, two circles interlaced. These pedlars carry the medicine in portmanteaus especially decorated. The composition of the medicine is stated to be starch, catechu, thuja, liquorice, elecampane, camphor, peppermint, and cloves. It is made in little cakes, covered with tinfoil, each cake being divided into twenty portions. The pedlars travel on foot throughout Japan, and chant, as they go along, the following agreeable little testimony to the virtues of the medicine they have to sell: "Ah, Patent Thousand Gold Medicine, the secret of which Nobuyamia ok Adzuchi St. Osaka has inherited. Ah! these are the properties of this medicine: Ah! it makes the stomach and spleen strong; Ah! it is excellent for hoarseness and colds, pyrosis, and the result of eating decayed food; Ah! it cures headache, giddiness, and dizziness on awakening, and is valuable for children's diseases." There is a familiar ring about this advertisement which shows that Nobuyamia has had his eye on our methods. —*Missouri Magazine of Pharmacy.*

Boric Acid in the Solubility of Certain Phenols.

M. Bernin (*Bul. de Pharm. de Lyon*) has found that boric acid increases the solubility of thymol, phenol, and salicylic acid to a considerable extent. The solubility of thymol in distilled water, which is about 1 in 800, is more than doubled in the presence of boric acid, 3 grammes dissolving easily in a litre of boric solution. For phenol its solubility is doubled; but it is particularly on salicylic acid that the solvent power is most marked. While distilled water does not entirely dissolve 1 gramme per litre, with boric solution 875 grammes can be dissolved.

ELMENDORF'S

TAR GUM,

A Sure Cure for La Grippe.

A Healthful Chewing Gum,

Curing Coughs, Colds and Sore Throat, Inflammation of the Lungs, Consumption, Catarrh, Rose Cold or Hay Fever, Asthma, Dyspepsia, Nervous Affection and all Germ Diseases, Cankered Mouth and Cleansing to the Blood.

PRICE 5 CENTS

Sample by Mail Two 3c. Stamps.

For Sale by Druggists.

THE CANADIAN SPECIALTY CO.,
38 Front St., East, TORONTO, Ont.
Dominion Agents.

THE CANADIAN SPECIALTY CO. -

Also in Stock . .

THE ROYAL REMEDY & EXTRACT CO.'S

Celery and Pepsin Chewing Gums
Sweet Wheat
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6 Plums in sliding Box, retailing at 5 cents.

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Containing each,
100 SWEET WHEAT
and
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HANDSOME, finely polished Oak Frame Show Cases.

3 sides glass, 3 glass shelves, 24 in. high, 8 in. wide, 7 in. deep.

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Send for Price List.

38 Front Street East, TORONTO.

Shuttleworth's . .

Fluid Extracts .
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Tinctures . . .
Green Soap . .
Chlorodyne. . .

Standard in strength and quality. Reasonable in price. Satisfactory in use.

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Look at your list and enquire of

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J. STEVENS & SON,

78 LONG LANE, - LONDON, E.C.,
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Red Cross English Dressings,
Druggists' Specialties,
Glass and Earthenware,
Hospital Supplies and Instruments.

1895 List and Discounts now ready.

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145 Wellington Street West,
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ESTABLISHED 1850.

OUR stocks of Seeds are now complete for the Spring Trade, and we shall be pleased to quote prices to dealers, and furnish samples when required.

CLOVER SEEDS,
Medium Red, Mammoth Red, Alsike, Lucerne, White, Scarlet, and Yellow.

GRASS SEEDS,
Timothy, Orchard, Blue, Red Top, Lawn, Hungarian, and Millet.

SEED CORN,
Red and White Cob, Compton's and Longfellow, and all the leading varieties for fodder and ensilage.

ONION SETTS,
Dutch, Potato, and Shallots.

Full assortments of agricultural and garden seeds for the trade. Write for catalogue.

John A. Bruce & Co.
Wholesale Seed Merchants,
HAMILTON, ONT.

The Best Brushes

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Full Stocks of New Crop

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SPECIAL ATTENTION TO
Red and Alsike Clovers, Timothy Seed, Etc.

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Catalogues on Application.
Correspondence Invited.

All enquiries by wire or mail will receive prompt attention.

The Steele, Briggs, Marcon Seed Co.
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☞ **Parties having any of the above Seeds, or Choice Seed Grains to offer, please send samples.**

The . .
Lyman Bros. & Co.
(LIMITED)
TORONTO, - ONT.

GREASE PAINTS

We are Canadian Agents for the celebrated Grease Paints manufactured by Chas. Meyer, New York, and have in stock the following, which we shall be glad to quote:

No. 1—Very Pale Flesh Color.
2—Light Flesh, Deeper Tint.
3—Natural Flesh Color, for Juvenile Heroes.
4—Rose Tint " " "
5—Deeper Shade " " "
6—Healthy Sunburn " "
7— " " Deeper Shade.
8—Sallow, for Young Man.
9—Healthy Color, for Middle Ages.
10—Sallow, for Old Age.
11—Ruddy "
12—Olive, Healthy.
13— " Lighter Shade.
14—Gipsy, Flesh Color.
15—Othello.
16—Chinese.
17—Indian.
18—East Indian.

Japanese and all other colors made to order
Done up in sticks of eight inches in length, and two sticks in a box, per doz. boxes

Lining Colors
Black, Brown, Lake, Crimson, White, and a color for shading wrinkles. Done up in six sticks in a box, per doz. boxes.

Carmine Crease Paints
Small sticks, per doz. boxes.

Assorted Grease Paints
Box containing two shades of Flesh, one Black, one Brown, one Lake, one Crimson, one White, one Carmine, and a color for shading wrinkles; per doz. boxes.

Powder Exora
The finest powder in use, Meyer's. Guaranteed perfectly harmless. In all colors; per doz. boxes.

Cream Exora
In china pots. A very fine preparation for beautifying the complexion. In different shades, as follows: White, Pink, and Brunette; also Creole, Gipsy, Indian, and all other colors made to order; per doz.

Rouge Exora
In china pots, extra fine quality; per doz.
For the lips; per doz.

Spirit Gum
For pasting on Beards, Moustaches, Whiskers, etc. No. 1, very strong: No. 2, medium; No. 3, mild. Small bottles, per doz. Large bottles, per doz.

Eyebrow Paint
Meyer's. Black, Brown, or Blue; per doz. sticks.

Nose Putty
Per doz.

Trade Notes.

H. Carter, Sundridge, Ont., has made an assignment.

The drug stock of the late Dr. Cameron, Lanark, Ont., is offered for sale.

W. F. Teetzel, of Nelson, is opening a branch drug store at Rossland, B.C.

E. S. Kinsman, Digby, N.S., has sold his drug business to L. R. McLaren.

F. A. Clarke & Co., druggists, Meaford, Ont., have made an assignment.

C. K. McGregor is opening a new drug store on Dalhousie street, Brantford, Ont.

B. M. Canniff, Portage la Prairie, Man., has sold his east-end drug store to J. K. Hill.

The drug stock of J. W. McLaren, Chatham, Ont., was destroyed by fire, March 31st.

The drug store of J. A. Gourlie, Summerside, P.E.I., was destroyed by fire, March 30th.

C. A. Dilworth, druggist, King street east, Toronto, has sold his business to W. J. Nicoll.

J. McIntyre has purchased the branch drug business of C. D. Daniel on Carlton street, Toronto, Ont.

We regret to learn of the very serious illness of Mr. Charles Thompson, druggist, of Tilsonburg, Ont.

The Kickapoo Indian Medicine Co. has filed letters of incorporation in the Tutelle Office, Montreal.

Cochrane & Munn, druggists, Victoria, B.C., have dissolved partnership. Mr. J. Cochrane continues the business.

Young has purchased the drug business known as the Gladstone Pharmacy, Queen street west, Toronto, Ont.

The Davis & Lawrence Co., Ltd., Montreal, Que., have now the sole right to manufacture and sell Perry Davis' Pain Killer in the United States.

A number of carload shipments of acids manufactured by the Victoria Chemical Company, of Victoria, B.C., have been made to various points in the United States.

Dr. Higinbotham, Brantford, Ont., has moved his drug business from the old stand, corner of King and Colborne streets, to a store on the east side of the Market square.

The many friends of Mr. George Birks, druggist, of Prescott, Ont., will regret to hear of the death of his son William, who was a first-year student of the Toronto Medical School.

"By Appointment, Chemist to His Excellency the Governor-General of Canada," such is the designation which has been conferred upon Mr. J. A. Harte, druggist, corner of Metcalfe and St. Catherine streets, Montreal.

Amongst those who are placing new soda water fountains in their drug stores this season are Henry Wade, Kingston, Ont.; D. C. Algnire, Cornwall. Ont.; and A. E. Brethour, Ottawa, Ont. These fountains have all been purchased from James W. Tuft, Boston, Mass.

Arthur J. Sequin, the popular traveller lately with John Taylor & Co., perfumers, Toronto, has been appointed agent for Canada for Messrs. Gelle Frères, of Paris, France, with headquarters at Montreal. Mr. Sequin was presented by his fellow-employees with a gold-headed cane on the occasion of his leaving.

At the recent wedding of Mr. James A. Kennedy, wholesale druggist of London, Ont., he was made the recipient of a handsome secretaire-bookcase, presented by his employees, who also extended their congratulations, and expressed their appreciation of the mutually pleasant relationship which existed between them as employer and employees.

Montreal Notes.

Mr. Brault, who was lately in the employment of Messrs. Laviolette & Nelson, has opened the long-closed store at the corner of St. Denis and Dorchester streets as a retail drug store. The supply is getting greater than the demand, and the idea that the public can support as many drug stores as groceries will receive a sudden shock one of these days. Even now it is doubtful whether any of them are making more than a very meagre living.

A neat box containing a glass tube and swab has been sent by the Provincial Board of Health to about a dozen pharmacies in different parts of the city, so that physicians can obtain one readily on application when they desire to have a bacteriological examination made of throat exudation to establish diagnosis in suspected cases of diphtheria. This will be done without charge by Dr Wyatt Johnson, bacteriologist to the department, and the result sent to the physician, all free of charge.

It is reported that two or three more drug stores are to be opened in the extreme east end this spring. There appears to be some subtle spirit in a pharmaceutical license which forces the holder thereof to forthwith begin business on his own account. It is not every man that can run a drug store successfully, and colleges, as a rule, do not turn out men of business. Experience in other cities than the one a man has served his apprenticeship in tends to enlarge the views, and is a powerful factor in success in life.

Mr. B. E. McGale, of Notre Dame street, has moved into his elegant new premises after the turmoil and annoyance of street widening. Mr. McGale is one of the most successful pharmacists in Montreal, and evidently knows how to run a drug store in the right way.

Mr. John Nault, who was also expropriated in the widening of Notre Dame street, will shortly move into his new quarters. It is to be hoped that the street widening craze has about spent itself in Montreal.

Mr. Wallace Dawson, of St. Lawrence Main street, recently opened a branch in the east end of St. Catherine street for the convenience of his many customers in that locality.

A singular action has been taken in the Superior Court by two students against the College of Pharmacy arising out of the troubles in the Botany class during the session just closed. The authorities properly refused to permit certain students to continue their attendance at the lectures unless they sent in a suitable apology for their conduct. This they did not do. *Hinc illæ lacrimæ.*

Mr. Albert Nelson, chemist, Notre Dame street, recently met with a severe loss by the death of his respected father, Mr. John Nelson, late of H.M. Customs. He was for a number of years collector at St. Hyacinthe, and was from there transferred to a more important post in the Montreal Custom House. He died full of years, beloved by all who knew him. His funeral service was held in the Church of the Gésu on the 25th ultimo.

Business looks very much like improving this spring. Already the streets are crowded with people, and the average daily sales in the retail stores are increasing. The cleaning of the streets of snow through which the electric cars run interferes a little with country trade, as the the farmers can come in their sleighs over the snow roads to the entrance of the city, and then have some difficulty in getting further.

Dr. Langelier, a member of the firm of the "Pharmacie Nationale," has purchased a magnificent soda fountain in the States which is said to eclipse anything ever brought to Canada. It is to be hoped he will have a good hot, dry summer to repay, to some extent, his enterprise.

A workman in a factory in Montreal on the 17th ult. drank some methylated spirits which had been given him to use in the course of his business. The well-known and delightful odor of the spirits tempted him and he drank it. Needless to say he died, and a "crowner's quest" sat on him.

An overdose of morphine and chloral was the cause of another death. The verdict rendered stated that "the deceased came to his death through an overdose accidentally taken by himself," and with the usual rider attached that no such poison should be sold, etc., etc.

Manitoba Notes.

The regular spring examinations for the Pharmaceutical Association of Manitoba began on the morning of the 3rd of April in the Manitoba Medical College, Winnipeg. Messrs. John F. Howard, C. Flexor, and Dr. W. A. B. Hutton were the examiners.

This is an anxious time for pharmacy students. Thirteen appear before the examiners at this sitting, three for the major and ten for the minor examination.

The annual general meeting of the Pharmaceutical Association of Manitoba will convene on Friday, the 5th of April, to receive the report of examiners and to transact such other business as may come before the meeting. A large attendance of members is anticipated, and, as there are matters of paramount importance to the association to be considered, an interesting and successful meeting is also anticipated. An account of the proceedings will appear in the next issue of this journal.

Mr. George Graham, formerly with Mr. G. W. McLaren, Morden, has lately purchased the business of Mr. S. L. Taylor at Treherne, and will continue the business at the same place. Mr. Taylor has removed to Minnedosa to take charge of his business at that place.

Mr. J. K. Hill, for some time with the late firm of E. D. Martin & Co., has purchased the branch store of Mr. B. M. Canniff, Portage la Prairie, and will continue the business in the same premises. Portage la Prairie is Mr. Hill's native town, and his many friends will look forward with interest for his success in the present venture.

Mr. George McLaren, Morden, whose entire store was consumed by fire recently, has again opened out with a fresh and complete stock of drugs and druggist sundries.

Mr. Watson, who has for some time been in charge of Messrs. Morrison & Jordans' store at Carman, has removed to Portage la Prairie to take a lucrative position with Mr. Joseph Taylor.

Messrs. A. Young & Co., formerly of Miami, has recently purchased the business of Messrs. Harrison & Co., Neepawa, and also their branch at Arden. Both will be carried on as before by Messrs. Young & Co.

Mr. J. K. Patton, of Minnedosa, paid a flying visit to Winnipeg last week.

Prince Edward Island.

The druggists of Charlottetown have every reason to be very grateful to Mr. Carmichael, traveller for Messrs. Lyman Sons & Co.

They had begun gradually to drift into cut prices and a certain degree of mutual mistrust had begun to exist, which prevented any one of them from initiating a remedial agreement. Recognizing this, Mr. Carmichael came to the rescue, and found no difficulty in securing the signatures of all the druggists in Charlottetown to the following agreement :

AGREEMENT.

We, the undersigned pharmacists of the city of Charlottetown, Prince Edward Island, recognizing the present unbusinesslike position into which the patent medicine trade has fallen and drifted, and for the remedying of this and other grievances,

We, the undersigned subscribers, on our honor as gentlemen and pharmacists, hereby agree, each with the other, to the following :

On and after Monday, March 18th, 1895, all patent medicines and other goods usually kept in a drug store shall be sold singly at the marked retail price on the package or advertised by the manufacturer.

When sold in half-dozen quantities, the price shall be the single price of five.

When sold in quarter-dozen quantities, the price shall be one-half the price of the half-dozen quantity.

All articles sold in quantities for cash may or may not be delivered at the time of sale, but the total amount of sales must be deposited.

All articles sold in quantities, on credit, must be delivered at time of sale.

The following list of articles is exclusive of the foregoing. To the selling price of these we further agree, viz. :

Allen's Hair Restorer	$1 25
Ayer's Hair Vigor	1 00
Beecham's Pills (English)	35
Butler Leeming's Essence	75
Burnett's Cocaine, small	60
Cullen Brown's Chlorozone, small	40
" " " large	1 00
Cuticura Resolvent	1 50
" Ointment	65
" Plaster	30
" Soap	25
Cockle's Pills	35
Condy's Fluid	35
Dunn's Fruit Saline	75
Eno's Fruit Salt	90
Elleman's Embrocation, small	50
" " large	1 00
Florida Water, M. & L.	60
Fellows' Syrup	1 25
Holloway's Pills, small	35
" " large	90
" Ointment, small	35
" " large	90
Horsford's Acid Phosphate	75
Hall's Hair Renewer	75
Kennedy's Medical Discovery	1 75
Lamplough's Saline	90
Murray's Fluid Magnesia	35
Mellin's Food, small	50
" " large	1 00
Medicamentum	10
McKenzie's Dead Shot	10
Parker's Tar Soap	25
Mexican Mustang Liniment	35
Sozodont	75
Steedman's Soothing Powders	35
Stedman's Teething "	35
Tinctures Iodine or Opium, 1 oz.	10
" " " 4 oz. lots and over	08
Tinctures, ordinary	08
" " 4 oz. lots and over, per lb	1 00
All articles costing from $7.50 to $8.50, no price marked thereon, sell for	1 00

Dated the 16th day of March, 1895.

The druggists sent a joint letter of thanks to Mr. Carmichael for his interest and kindness.

So far the system is working satisfactorily, and the agreement has restored the proper mutual feeling of confidence among the druggists.

College of Pharmacy Examinations.

The Montreal College of Pharmacy closed a very successful lecture session on Friday, March 29th, 1895, the usual sessional examinations having taken place during the week. The students were examined in chemistry, materia medica, and botany, and the results given below are those of the combined sessional examinations of December and March, the names of the successful students being given in order of merit. The student obtaining the highest points in each subject gains the prize given by the college for these subjects.

The names of the successful candidates are as follows: Botany—Osborne T. Pinck, W. F. Horner; Chemistry—1st year—Louis Rogalsky, W. Frothingham Roach, Oscar Turgeon, O. Mowatt, James Franckum, W. F. Horner; 2nd year—James A. Gillespie, F. L. Woolley, O. T. Pinck, James H. Goulden. Materia medica—1st year—R. J. Lunny, Louis Rogalsky, Norman Holden, D. R. O'Neill, D. S. Baxter; 2nd year—James A. Gillespie, Osborne T. Pinck, and Oscar Turgeon.

In addition to the above, the following students passed in materia medica at the closing sessional examination, namely: A. Germain, E. Thiverge, J. A. Goyer, M. Langlois.

The major and minor examinations of the Quebec Pharmaceutical Association will be held April 16th and following days.

Should Doctors Dispense?

A correspondent of *Tit-Bits* remarks that pharmacy is a trade or profession which is really little understood by outsiders. A chemist's real business is dispensing the prescriptions of medical men, and a doctor's real business is attending and prescribing for the sick. A patient is really better off to pay his doctor for his advice and prescription and take it to a reliable chemist, who, the chances are 1000 to 1, will charge according to the quality of the drug supplied. There is absolutely nothing that varies so much in price as drugs. Glycerin, citrate of magnesia, salicylates, essential oils, the majority of drugs can be bought at any price, and it stands to reason that a chemist supplying a good, sterling quality cannot charge the same as, say, the stores, where the proprietor is not a chemist at all, and really does not, in many cases, understand the true manipulation of the drugs any more than his errand boy or porter, and often has no scruples as to quality. — *Pharmaceutical Journal and Transactions.*

BENZACETIN, or acetamido-methyl-salicylic acid, is a white, crystalline body, melting at 205°C. It is soluble in alcohol, slightly so in water. It forms very active salts with bases. It is said to be an excellent remedy for neuralgia, and to give great relief in half an hour.

READ THIS

Dear Sirs, St. Marys, August 3rd, 1892.
The following may be of use to you: "A customer of mine, who keeps a butcher shop in this town, bought a 10 cent package of your Fly Pads from me and in ten days killed over A BUSHEL MEASURE OF FLIES." Yours truly,
F. G SANDERSON.

IT WOULD TAKE OVER
300 SHEETS OF STICKY PAPER
TO HOLD THIS BUSHEL OF FLIES

WILSON'S
FLY PADS
SOLD BY ALL DRUGGISTS

There is an
- INCREASED DEMAND -
for
WILSON'S FLY PADS
- Annually. -

Wilson's Fly Pads kill 150 times as many Flies for the money as Sticky Fly Paper, and the public recognizes the tremendous difference in value. Sticky Paper kills a comparative few; Fly Pads kill them all.

Have you ordered Fly Pads for the season?

All Wholesale Druggists keep them.

Archdale Wilson & Co.,
Hamilton, Ont.

FREDERICK STEARNS & CO.'S
PREPARATIONS OF KOLA

Preparations of the Fresh (Undried) Nut.

Kolavin A delicious wine, each tablespoonful representing 30 grains of the fresh (undried) Kola nuts. In full pints, $8.00 per dozen.

Kolabon Elegant confections or bonbons, each representing 10 grains of fresh (undried) Kola. $4.00 per dozen boxes.

Fluid Kola A concentrated liquid extract, each minim representing one grain of fresh (undried) Kola. Per pint, $3.50.

Preparations of the Dried Nut.

Stearns' Kola Cordial (The Original.)

A delicious cordial, each teaspoonful representing 15 grains of dried Kola. In 12 oz. bottles at $8.00 per dozen.

Compressed Tablets of Kola

Compressed Tablets of dried Kola, 10 grains each. Per 100, 25 cents.

Fluid Extract of Kola

Each minim representing one grain of dried Kola. Per pint, $3.50.

Our Claims on Kola.

1. We introduced Kola commercially in America in 1881 (see New Idea, April, 1881).

2. We introduced the first palatable preparation of Kola in the form of Stearns' Kola Cordial in 1893.

3. We originated the first and only preparation of fresh (undried) Kola in 1894, when Kolavin was introduced.

4. We to-day are the only importers of fresh (undried) Kola from Africa.

5. We have done more scientific work on Kola than any other American house. (See our 80-page monograph issued last year, 1894.)

6. We have done more by liberal advertising in the pharmaceutical and medical press to call Kola to the attention of these professions than all other houses combined.

THEREFORE we consider ourselves headquarters for Kola and its preparations, and believe the professions will endorse our position.

Frederick Stearns & Co., Manufacturing Pharmacists,
(The introducers of Kola in America)

Windsor, Ont, London, Eng. New York. DETROIT, MICHIGAN.

Buttermilk - Toilet Soap.

⅓ size facsimile of package.

Over 2,000,000 Cakes Sold in 1892

The Best Selling Toilet Soap in the World.

Excels any 25-cent Soap on the Market. Nets the Retailer a good profit.

When sold at a very popular price it will not remain on your counters. Try a sample lot.

The quality of this soap is GUARANTEED. See that the name "BUTTERMILK" is printed as above "in green bronze," and the name "Cosmo Buttermilk Soap Company, Chicago," in diamond on end of package. Beware of imitations.

COSMO BUTTERMILK SOAP CO.,
165 Wabash Ave., CHICAGO.
F.W.HUDSON & CO, TORONTO
Sole Agents for Canada.

KENNEDY'S MAGIC CATARRH SNUFF

(REGISTERED)

A POSITIVE CURE FOR

CATARRH
COLD IN THE HEAD
CATARRHAL DEAFNESS
HEADACHE, Etc.

It is reliable, safe, and sure, giving instant relief in the most distressing cases.

PRICE, 25 CENTS.

Wholesale of **Kerry, Watson & Co., Montreal.**
Lyman, Knox & Co., Montreal and Toronto.
And all leading Druggists.

BURLAND'S

OLD DOMINION CRESCENT BRAND

CINNAMON PILLS

THE ONLY GENUINE
RELIEF FOR LADIES.

ASK your Druggist for "Burland's Old Dominion Crescent Brand **Cinnamon Pills.**" Shallow rectangular metallic boxes, sealed with crescent. Absolutely safe and reliable. Refuse all spurious and harmful imitations. Upon receipt of six cents in stamps we will reply by return mail, giving full particulars in plain envelope. Address

BURLAND MEDICAL CO.,
Morse Building, NEW YORK CITY.
Please mention this paper.

NOTICE.

We have just been appointed Wholesale Agents for the Dominion of Canada for the sale of

Payson's Indelible Ink.

All Orders will have our prompt attention.

The London Drug Co.

LONDON, ONT.

KERRY, WATSON & CO., - MONTREAL.

PRI-MO LADIES' SYRINGE.
WE ISSUE A PAMPHLET THAT WILL INTEREST YOU.
IT IS USED WITHOUT BED PAN.
PERFECTLY ASEPTIC.
ANATOMICALLY CORRECT.
NOT A WEDGE.
E.J. HUSSEY & CO.
80 John St. New York.
INTRODUCERS OF NOVELTIES OF MERIT

PER DOZ.
No. 1. Nozzle and Shield, with Outlet Tubing . . $30
No. 2. " " Complete 2-qt. Fountain, 48

DISCOUNT TO TRADE ON APPLICATION.
BEST SYRINGE ON THE MARKET. SOLD BY ALL JOBBERS.

LYMAN, KNOX & CO.
Montreal and Toronto
Agents for Canada.

DICK'S UNIVERSAL MEDICINES FOR HORSES AND CATTLE

They always give entire satisfaction, and there are no medicines in the market that can compare with them.

Thrifty farmers, stockowners and carters all over the country are, by actual results, realizing that they cannot afford to be without a supply of

Dick's Blood Purifier Price 50c.
Dick's Blister, for Curbs, Spavins, Swellings, etc. Price 50c.
Dick's Liniment for Cuts, Sprains, Bruises, etc. Price 25c.
Dick's Ointment. Price 25c.

Circulars and advertising cards furnished.

DICK & CO., P.O.Box 482, MONTREAL.

A PERFECT TOILET GEM.

ARECA NUT TOOTH SOAP. . .

The drug trade of Canada will find this one of the most satisfactory articles on the market. The package is convenient and attractive.

Kindly make sure the ARECA NUT TOOTH SOAP offered you is made in Winnipeg. The genuine is for sale by

Lyman Bros. Co., Toronto,
Elliot & Co., Toronto,
Evans & Sons, Montreal,
Lyman, Knox & Co., Montreal,
Lyman Sons & Co., Montreal,
Kerry, Watson & Co., Montreal,
J. Winer & Co., Hamilton,
J. A. Kennedy & Co., London, and by

THE
MARTIN, BOLE & WYNNE CO.,
WINNIPEG.

HOW IS THIS?

Something unique even in these days of mammoth premium offers is the latest effort of Stafford's Magazine, a New York monthly of home and general reading.

The proposition is to send the Magazine one year for one dollar, the regular subscription price, and in addition to send to each subscriber fifty-two complete novels during the twelve months; one each week.

Think of it! You receive a new and complete novel, by mail, postpaid, every week for fifty-two weeks, and in addition you get the Magazine once a month for twelve months, all for one dollar. It is an offer which the publishers can only afford to make in the confident expectation of getting a hundred thousand new subscribers. Among the authors in the coming series are Wilkie Collins, Walter Besant, Mrs. Oliphant, Mary Cecil Hay, Florence Marryat, Anthony Trollope, A. Conan Doyle, Miss Braddon, Captain Marryat, Miss Thackeray, and Jules Verne. If you wish to take advantage of this unusual opportunity, send one dollar for Stafford's Magazine, one year. Your first copy of the Magazine, and your first number of the fifty-two novels (one each week) which you are to receive during the year, will be sent you by return mail. Remit by P.O. Order, registered letter, or express.

Address—

STAFFORD PUBLISHING CO.,
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P.O. Box 2264. NEW YORK, N.Y.

Pharmacy in England.

The Research Laboratory Squabble—Freund and Dunstan on Aconitine—Dr. Williams' Pink Pills—Allen & Hanburys' Anti-cutting Scheme—Drug Stores Amalgamate—Coca Wine and Petroleum Emulsion.

(From Our Own Correspondent.)

Reference was made last month to the unfortunate squabble which is now going on over the aconite research conducted by the Research laboratory of the Pharmaceutical Society. Matters since then have assumed an acute stage, and no one can forecast what the upshot will be. Briefly stated, the affair arose through a comment in the official review of the year, published in the *Pharmaceutical Journal*, although Professor Dunstan regards the action of that journal as having been antagonistic for some time. The editor warmly repudiated the insinuation, and demanded an apology, which the Research committee at one stage of its proceedings was quite prepared to accord him. Now they are reported to have unanimously passed a report in favor of Professor Dunstan's claims, and the apologizing is expected from the other side. The whole affair is unquestionably lamentable, and it hardly appears possible, from the acrimony imported into the discussion, that any mutually satisfactory understanding can result. The resignation of either Dr. Paul, the editor of the *Pharmaceutical Journal*, or Professor Dunstan, would be a most unfortunate close to an incident that should never have occurred, and which a little reasonable action of the committee would have prevented.

Quite apart from this regretful disagreement, Professor Dunstan has to meet some severe criticisms from Dr. Martin Freund, who, having repeated some of Dunstan's work on aconitine, has arrived at different results. Freund has obtained totally different numbers in the combustion of aconitine, and has identified Dunstan's isaconitine with a product of the hydrolysis of aconitine. Freund's work on hydrastine is well known, and his determination to continue the aconitine research will be productive of interesting results to all who desire to see the answer to a complex question. The abilities of the two investigators are unquestioned, and the duel will be intently watched by chemists and pharmacists. The constitution of alkaloids is a subject of deepest interest, and allows room for any amount of speculative imagination. For over four years the Research laboratory of the Pharmaceutical Society have devoted their best energies to clearing up the uncertainty which surrounded the aconite alkaloids. It will, indeed, be disappointing if the greater part of the evidence produced during the investigation should be called in question and proved to be incorrect. At any rate, as Professor Brauner, the eminent chemist of Prague University, remarked to the London Chemical Society this week, "It is better to acknowledge one's error than have it proved by some one else." Holding this view, we are bearing with equanimity the corrections in his own work that Professor Dunstan has since made.

The proprietor of Dr. Williams' Pink Pills is pushing the sale by very extensive advertising in England just now. Some marvellous testimonials are reproduced, and the pills are claimed to cure locomotor ataxy, scrofula, and other almost incurable diseases. The claim that these pills are not a patent medicine is hardly fair, for, although literally true, it has been the custom for many years to class all these proprietaries as patent medicines, and the public still regard them so. Indeed, one of the points upon which most reliance was laid, when the Pharmaceutical Society commenced its crusade against the unqualified sellers of these so-called patent medicines, was that by long custom they had become regarded as patents, and were therefore entitled to the exemption made in favor of patent medicines in the Act. As the readers of the CANADIAN DRUGGIST are aware, this argument was not successful in the law courts when proprietaries containing poisons were concerned.

Messrs. Allen & Hanburys, Limited, of Plough Court, have joined the anti-cutting league by demanding a signed guarantee that their preparations shall not be sold below the minimum prices which they have specified. This only applies to their well-known specialties, such as their infants' food, bynin (extract of malt), bynol (extract with cod liver oil), etc. Whilst giving Messrs. Allen & Hanburys credit for the best intentions, there is nothing very striking about the scheme. Chemists can hardly be supposed to wax enthusiastic over a scheme that practically sanctions the selling of a 42-cent bottle of bynin at a minimum retail price of 35 cents, of which the wholesale price is 32 cents; or even their popular food, which is supposed to retail at 24 cents, and for which they have settled a minimum cutting price of 19 cents, the wholesale price being 18 cents. There is no doubt that the adhesion of such an old-established firm to the principle that it is wise to do something to prevent unreasonable and ruinous competition amongst traders will have more beneficial effect than the mere value of their scheme. All these methods of protecting the trade have the serious drawback of inflicting extra clerical work and hampering *bona fide* business transactions amongst all concerned. Were it not for this there would be far more wholesalers joining in the movement, and something like success, in the objects desired, would be attained.

It is a significant fact that four of the large drug-store proprietors in London have joined hands and invited the co-operation of the public in running their businesses. These four vendors are the proprietors of some eleven stores, five of which have been opened during the last four years. The price for the whole has been fixed at £65,900, of which £33,900 is to be in cash and the remainder in shares. This amount includes the leases of the various shops, fixtures, and stock. The profit during the past three years average about £7,000 on a turnover of about £49,000. If this rate of profit should be maintained, and the directors confidently anticipate an increase, it will be sufficient to pay 6 per cent. on the preference and 10 per cent. on the ordinary shares. It is rumored that some of the shares have already been dealt with at one-quarter premium, but there is a clause in the prospectus which financiers regard as ugly. It is stipulated that 100 deferred shares of £1 each (taken wholly by the vendors) are to be entitled to half the profits after 10 per cent. has been paid on the ordinary shares. This means that if the profit, after 10 per cent. has been paid, should be £2,000, £1,000 would be divided among the ordinary shareholders, and would give them an extra 1½ per cent. The remaining £1,000 would go to the deferred, giving them 1,000 per cent. interest! This is truly an equitable piece of drug-store subtlety.

After the influenza is the harvest time for tonic wines and general pick-me-ups. Coca wine is daily growing in popularity in this country, although care has to be exercised that the wine contains a sufficiency of the drug or the revenue authorities object. The method of mixing the fluid extract of coca with an ordinary red wine is frequently productive of an almost inert and alkaloid-free product. The tannin in the wine precipitates the alkaloid and filtration removes the precipitate, and also a good deal of the color of the wine. This may be partly prevented by detannating the wine first with gelatine, in the proportion of half a drachm of gelatine to a pint of wine. The wine, after clarification, usually precipitates resinous matter on the addition of the coca, owing to the acid present, but there is no fear of precipitating alkaloid. Cod liver oil emulsion, syrup of the hypophosphites, etc., all have their advocates, and each chemist should be prepared with a nice staple article. Petroleum emulsion, made with the odorless and tasteless petroleum oil, with hypophosphites, has been more popular this winter, and if it has any efficacy is certainly much less nauseous than cod liver oil. Clinical opinions so far appear divided, but perhaps not much more than they usually are.

The cod liver oil scare, coming as it did at nearly the end of the season, caused a good deal of commotion. Many firms had run their stocks low, and as each week the livers were reported from Norway to be leaner than ever, and prices went up, things began to look black. Many chemists all over the country have contracts to supply drugs, etc., to the local hospitals or unions, and those who had no stocks left were in a tight corner. But already the scare is over and prices are falling rapidly. Apart from the fact that considerable stocks of 1894 oil existed in London and Hamburg, the

demand is appreciably getting smaller as the spring advances. Probably three months hence, or even earlier, we shall see cod liver oil back to its old figure before the scare, and the trade will feel easier.

Airol.

Airol is the trade name given bismuth oxo iodo-gallate, which is the latest addition to the long list of substitutes for iodoform. The new combination is, as usual, patented in Germany, and the name, airol, trade-marked. Airol is described (*Woch. fur Chem. und Pharm.*) as a gray-green, fine, voluminous, tasteless, and odorless powder, permanent in the light. When exposed to moist air, it is gradually converted into a red powder, which is a still more basic bismuth compound with relatively smaller percentage of iodine. It is insoluble in the ordinary solvents, but dissolves in soda solution, and in diluted mineral acids. With small quantities of water and glycerine, it forms an emulsion which is fairly permanent. When heated with concentrated sulphuric or nitric acids, iodine is relaxed. When dissolved in very dilute hydrochloric acid and shaken with chloroform, the chloroform assumes a violet color. Another portion of the hydrochloric acid solution when treated with iron chloride gives the intense dark-green reaction of gallic acid. If hydrogen sulphide be passed through a hydrochloric acid solution of airol, black bismuth sulphide is precipitated.

Improved Syrup of Iodide of Iron.

In the *Bulletin Commercial*, M. Oswald Girard, after speaking of the variations found in commercial syrups of iron iodide, involving especially color and taste (due to the changes which take place when the ordinary syrup is used), and also of the various methods used to obviate the changes or mask the taste, suggests the following formula, which he declares is free from the objectionable features of the process of the Codex and pharmacopœias :

Iodine	41 parts.
Iron	20 parts.
Distilled water	100 parts.

Proceed as directed in the Codex or Pharmacopœia, and, after the solution of iron iodide is obtained, mix it with the following syrup :

Citric acid	5 gm.
Distilled water	10 gm.
Alcoholic essence of orange peel.	10 gm.
Simple syrup sufficient to make (with the addition of the iron solution)	1 kilo.

Twenty grams of this syrup contain ten centigrams of iodide of iron.—*National Druggist.*

The man who can't laugh can't succeed.

A mistake openly acknowledged is a fault remedied.

Correspondence.

The Qualification of Apprentices.

Editor of the CANADIAN DRUGGIST :

DEAR SIR,—Your invitation, in the last issue of the CANADIAN DRUGGIST, to your readers to "air their opinions" on matters pharmaceutical has induced me to speak of a matter which has been repeatedly brought to my notice during the past year or two.

I believe the members of the council are always ready to receive suggestions that may be for the good of the profession and lift it out of its present anomalous condition to a position of strength, security, and respect.

Matters are gradually—nay, rapidly—growing worse. What with the departmental store, the manufacturing pharmacist, the dispensing physician, and our colleges crowded with fledgling druggists, pharmacy is "between the devil and the deep sea." Are we going to give up what we have already won, and place ourselves on the line of the grocery and dry-goods man, or shall we hold our ground, lop off dead and decaying branches, and, by raising ourselves above mediocrity, gain the respect, not only of the public generally, but also of our sister professions, which, at present, are inclined to look down upon us?

This leads me to speak of the great weakness in our educational system, the qualification of apprentices, and I have no doubt a great many of your readers have had experiences similar to my own.

The qualification is supposed to be a third-class non-professional with Latin, or its equivalent, as certified by headmaster of a High school. This alternative, would-be apprentices have found, is a good deal easier than the third-class certificate, and is, in fact, a wide-open back door into the fold of pharmacy. For instance, a boy fails in his third-class examination, in whole or in part, and, instead of going at it again, he gets a tutor—perhaps a senior pupil of the High school—to "coach" him for two or three months ; said tutor sets a series of papers on which his pupil passes, the headmaster certifies O.K., for he knows little, and cares less, of the qualification required. I have known young men to become registered on this plan who dare not attempt the open examination, and who were wofully ignorant of a common English education. The question with him is not, "How much can I learn?" but, "How easiest can I get registered?" His penmanship is vile, his spelling no better, grammar an unknown subject. He may know a few Latin nouns, but he could not put a sentence together grammatically to save his neck.

If every pharmacist practising to-day had been obliged to pass, at least, a university matriculation before commencing his apprenticeship, would he not be a more successful man? He would have more respect for himself, as would also his neighbors ; our profession would stand second to none ; then only those who loved pharmacy for its own sake would have entered its portals, and those who saw only the fine clothes, fancy fittings, and reputed profits would have been compelled to stay out.

There is no longer any need to keep the standard so low as at present. Let us accept only university matriculation as sufficient for registration. Not even the Ph.B. degree has done so much to raise the status of our profession as this would do.

I hope, Mr. Editor, to hear from others on this subject, through the columns of your really excellent journal.

Yours truly,

MEDICAMENTARIUS.

Sealing Wax.

It is singular enough that the oldest-known printed recipe for making common sealing wax, published at Augsberg in 1579, describes the use of almost the same ingredients as those at present employed Rosin, the whitest that can be obtained, Venice turpentine, and vermilion are the components. For black wax lampblack is to be added, for blue wax smalt, and for yellow orpiment. When sealing wax was more widely used than is the case at present, scented wax was an article frequently on sale at fancy stationers ; but in this epoch of feverish impatience and hurry, although our Gallic neighbors may have their sealing wax code with a different signification for each color, we rarely go beyond the employment of black wax for announcements of a funereal and mortuary kind and of red wax for business letters. On the whole, it may be said of sealing wax as of quill pens—nine out of ten prefer a steel pen to a quill one, and about the same proportion prefer using a gummed envelope to the trouble of sealing a letter with wax.

Before the introduction of the penny post envelopes were rarely used, because extra postage was charged for every paper enclosed in another, and for years afterwards a four-paged quarto letter was folded so as to be self-contained. When envelopes were first sold they were not gummed, so sealing wax was used. When such letters went across the equator, mostly in sailing vessels, the wax used to run and stick all the letters together, especially when the ship "got into the doldrums," and frizzled becalmed near the equator for days at a stretch. It is quite within modern memory when postage stamps were first perforated. Before that they had to be cut apart with scissors or a knife, or to be torn from the sheet, to the disadvantage of a clumsy operator. The little discs called "wafers" seem to have gone right out of fashion.—*Stationer and Printer.*

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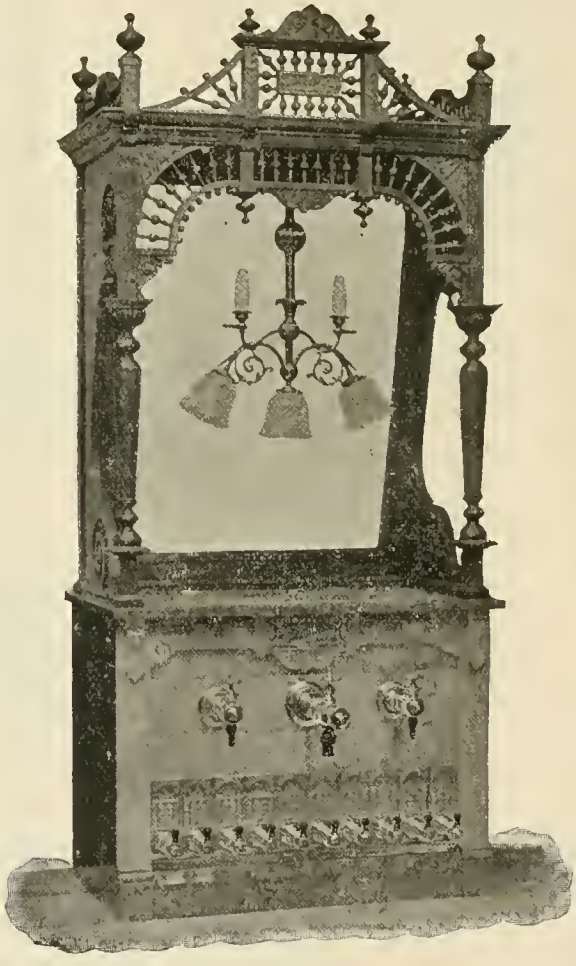

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A Short History of Scales and Weights.

Read before the Wisconsin Pharmaceutical Association, by A. C. MORRISON.

In recording the development of weights and measures, which necessarily includes the means of ascertaining the force of specific gravity upon any object, and the apparatus by which weight is estimated, if full justice is done to the subject, volumes in folio would be needed. It will, therefore, be necessary to cover the subject as regards early history in a more cursory manner than would be wished by the conscientious compiler.

The word weight and the word gravity are nearly synonymous. Gravity is the force which attracts everything within the radius of this planet toward the centre of the earth, which is commonly called the centre of gravity, at which point the force of the gravity of the world is at equilibrium, balanced by equal attraction in every direction. As is well known, this common acceptance of the word gravity is in error, as every planet, every sun, every constellation, and the universe itself, has its own centre of gravity, towards which objects are drawn by an almost incomprehensible attractive force in direct ratio to the bulk, density, and distance of the object from this centre, and these objects are restrained from falling to this centre and into a fiery chaos by the centrifugal force of their own motions above it.

The absolute weight of any object, then, is its attraction without other influences toward the centre of gravity; and the pressure exerted by this object, if restrained from approaching the centre of gravity, is weight. There are innumerable means of ascertaining weight. Among them is the astronomical method of weighing a world or a sun by arithmetical deductions from its known motions, density, and bulk; but as in this article we have to do more especially with the ascertainment of terrestrial weights and their use in commerce, we are obliged, on the score of brevity, to confine ourselves to weights and measures as established by usage, legislative enactment, or the customs of a locality, and the establishment of the specific gravity exerted upon a given object by comparison with these standards; and this brings us directly to that simplest of all means—the balance. If a horizontal bar be attached by means of a flexible support to a given point, exactly in the centre, it will remain horizontal, owing to the neutralization of the force of gravity exerted on either end by the other. It is then said that it is a perfect balance. Attach to this a standard of weight established by either of the means above described and the influence exerted will draw the bar into a horizontal position. Attach to the other end of the bar a weight exactly equivalent to the standard previously fixed, and if, for instance, that standard be what is commonly designated as one pound, the balance is again established; and as it will not be established until the weight at either end is exactly the same, we know that the article attached in the second instance is one pound. The scale is, therefore, called a balance, and offers us the simplest solution of the difficulty of ascertaining relative weights. The balance is unquestionably the earliest means of ascertaining weight, and almost all commercial and practical methods of ascertaining weight are based upon this principle. Even the hydrometer simply finds its equilibrium and the liquid establishes its balance and thus tells with certainty the specific gravity of a liquid, from which the weight of a given quantity of liquid can, by comparison with the known weight of water, be ascertained.

The Bible gives us many instances of the use of the balance, and it is extremely difficult to fix its earliest beginnings, which seem to be lost in the mists of antiquity; and it is strange also to be obliged to assert that modern civilization, while it has immeasurably improved in accuracy the means of ascertaining weight, relies still chiefly upon the early principle of the balance.

The steelyard, as it is commonly called, came into use as an improvement on the ordinary balance, as far as history knows, with the Romans, although it probably did not originate with them. This apparatus differed from the ordinary balance in the fact that one end of the horizontal bar was much thinner than the other, which enabled its makers to place means of suspension nearer to the large end before equilibrium was established. By using a single weight it therefore became possible, by means of a scale marked on the long end, to ascertain several weights, basing the calculation upon the distance as marked on the scale from the centre of gravity. Thus, the weight which two inches from the centre of gravity would weigh a certain amount would, ten inches from this centre, balance a very much larger weight, owing to the principle of the lever which is brought into play. This made possible the ascertainment of the weight of any commodity to a nicety, without the constant change of weights which was necessary to establish the equilibrium of the common balance. Modern scales are, in a large measure, based upon the principle of this Roman steelyard, although many modifications have been introduced.

There is a balance called the Danish balance, and used in commercial matters in countries near the Baltic, which differs from the steelyard in this—that the counterpoise is fixed and the pivot movable, whereas in the steelyard the pivot is fixed and the counterpoise, or balance in weight, is movable. The beam is graduated in a contrary direction to that of the steelyard in order to adapt it to this change, and the beam has to be slid forwards or backwards, according to the weight to be counterpoised. In the common balance, the steelyard, and the Danish balance, the beam is straight, but there are others called the bent-lever balances, in which the weight is suspended from a bent arm and counterpoised by a heavy knob at the other end, and the heavy knob is made to indicate the weight of the article attached to the bent arm.

There are a large number of important contrivances called spring-balances, weighing-machines, and dynamo-meters, whose object is to indicate pressure, weight, or force in various ways, but it would be impossible to describe them within the limits of the present paper, as many of them are very intricate. It is curious to recollect that the modern steam gauge, which indicates the pressure of steam, is simply a weighing-machine; and so on, in innumerable fields, the weighing-machine presents itself to us most unexpectedly.

At this point, it is well to digress to the subject of acknowledged standards of weights and measures. Throughout the world, in every nation, and it might almost be said in every community, different standards and weights are used to express a given quantity, length, or weight of commodities, but we have more to do with avoirdupois, troy, and the metric system, and, for the purposes of this article, it will be necessary to confine ourselves to these three. King Edgar, of England, in order to establish uniformity throughout his realm, where the utmost confusion prevailed, enacted certain decrees in the year 975, a work more completely done by William the Conqueror, who ordered that all weights and measures in the kingdom should be stamped. Richard the First, in the year 1197, established the yard, which was a measure exactly equalling the length of the arm of the preceding monarch, Henry the First. King John confirmed the legality of the then weights and measures in the Magna Charta. We gain our first knowledge of what the exact standard of English weights was from the statute of Henry the Third, in 1266, which declares "that an English penny shall weigh thirty-two wheat corns in the midst of the ear; that twenty pence shall make one ounce, twelve ounces, one pound; that eight pounds do make a gallon of wine; that eight gallons of wine do make a London bushel, which is the eighth part of a quarter." It appears that the wheat corn was the first standard of weight in England, and it is supposed that the metallic weight called a grain was used as the representative of a wheat corn, and that the modern troy grain is nearly the same. After a time the pennyweight was reduced from thirty-two to twenty-four grains, twenty pennyweights made an ounce, and twelve ounces, one pound. This was called the troy pound, and became the standard of English weight, consisting of 5,760 grains; but still legislation could not insure uniformity in weights, for there was the moneyer's pound, consisting of 5,400 grains, the avoirdupois pound of 7,000 grains, and the old commercial pound of 7,600 grains. In the time of Elizabeth, a standard of the avoirdupois

pound was placed in the exchequer, and a standard of the troy pound was placed in the exchequer, Goldsmith's Hall, and the Mint. Nothing seems to have occurred in regard to the standard of weight till 1758, when a committee of the House of Commons was appointed to investigate the subject of weights and measures. On comparing the troy pound in the mint with that in the exchequer, it was found that the former was 1⅛ grains heavier than the latter. As the exchequer pound had been in use 170 years, the committee concluded that it had become somewhat worn.

It was then considered whether the English standard should be troy or avoirdupois in the future, and they resolved upon the former for the reason that that weight was best known to the English law; it was that which had been the longest in use, and that by which coins were measured; it was best known to the world; it was that to which their countrymen had referred and compared ancient and modern weights; and it was the weight which had been subdivided into the smallest parts. The committeee then proceeded to obtain, with the utmost possible exactness, the standard weights of the several parts of the troy pound, in which they were assisted by a balance constructed by a Mr. Bird, which would turn with the two-thousandth part of a grain. One copy of the standard troy pounds was delivered to the House of Commons, and another to the king's assay master of the mint, in whose possession there was, and we believe still is, Mr. Bird's weighing apparatus. The troy pound consists of 5,760 grains, and should it be destroyed can be re-established from the fact that according to its standard a cubic inch of distilled water, at a temperature of 62 degrees Fahr., and 30 degrees bar., weighs 252.458 troy grains.

In the year 1816, it was decided that the avoirdupois pound should be 7,000 grains troy. Thus we have two standards in England. It is useless here to go into the details of these differences, which are both technical and practical, and which may be illustrated by the assertion that in some places 112 lbs. of potatoes are one cwt., in others 120, in others again 132; and at no point on record is 100 lbs. of potatoes a hundred-weight of potatoes. This divergence runs through commerce in every direction, and would form an interesting subject for further research, but must be omitted.

We next come to the establishment of the metric system, for which we are indebted to France. The distance from either pole to the equator is mathematically equal to one-fourth of the circumference passing through both poles, and is therefore called a quadrant. It was determined to make the ten-millionth part of this quadrant the standard of measure from which a standard of weight might be deduced. The next point, therefore, was to determine the exact number of units of measure of any given system which this quadrant contained. This required the researches of the astronomers and mathematicians. It was found that the distance from the North Pole to the Equator was 10,936,578 English yards, or, to put it in a less scientific and rather more amusing form, it would take exactly this number of arms exactly the same length as that of Henry the First to cover the distance. We are, therefore, obliged to admit that although Henry has for over six hundred years slumbered, this remarkable arm of his is still as useful a standard of measurement as heretofore. But the French did not follow in the footsteps of the English, except in so far as to ascertain an expressible distance, for they divided these 10,936,578 English yards by 10,000,000, which added something over three inches to the arm of Henry; and should the metric system, which looks probable, ever conquer the world, the disciples of Henry will be proved guilty of giving short measure. From this measure of length were deduced measures of weight. The one-hundredth part of a metre is called a centimetre. Suppose, then, that we have a centimetre cube of distilled water at its point of greatest condensation, about 39.36 Fahr. The weight of this cube is the unit or standard weight, and is called a gram. The silver coinage of France rests on this basis, a franc being five grams of silver nine-tenths pure.

The weights and measures used for the simple traffic of original or primitive nations are always simple, and are usually of early origin. We find that the metric system, however, is based upon scientific and easily ascertained facts, and has the advantage of being estimated by a decimal system, which is an extraordinary simplification. The earliest standards of measure were the length of the foot or of the palm, a pace, a span, or the distance from point to point of the extended arms, all of which were subject to radical and irreconciliable differences in the individual. The standardizing of weights and measures by government is usually the first indication of the advancement of civilization, and a history of the enactments of the various governments would be interesting in the extreme, but we must leave this subject, after mentioning the fact that, among other means of ascertaining a fixed standard, it has been attempted to establish a unit of length of a pendulum vibrating seconds in the mean latitude of 45 degrees. In the last hundred years there seems to have been rapid improvement in the methods of ascertaining weights by means of balances, not that the highest possible attainment in the simple balance much exceeds the marvel of Bird, whose balance turned with the two-thousandth part of a grain, but that the balances and scales used for ordinary commercial transactions are so much nearer the high standard of perfection. This is due to the modern inventive genius of the times, which has manifested itself in this and many other directions. It is not that new principles have been introduced, but that greater progress in mechanical operations has been made possible by the greater perfection in machinery. Even in the working and finishing of metals many advantageous points of advancement have been seized upon by the manufacturer of balances and scales and applied successfully, so that the standard of perfection in scales to-day is inconceivably in advance of the crude efforts of the early world.—*Omaha Druggist.*

Chances for Enterprising Druggists.

Because the druggist must surrender a part of what was formerly his, it by no means follows that the loss is irretrievable, or that he is without means of effective retaliation against his despoilers. The process of merchandise distribution is undergoing incessant change and readjustment. Every branch of retail trade must expect some losses, but to the enterprising and alert there are usually corresponding gains. If perfumes must go, why not replace them with school books and school supplies generally? If toilet articles, why not introduce a select line of artists' materials, engravings, etchings, frames, and related supplies? Anything of cleanly and ornamental character, if adapted to the space limitations of a drug store, and particularly if its advantageous sale be largely dependent upon the information and personal judgment and reliability of the merchant, will find an especially appropriate place in the druggist's stock. To this class belong also lamps, glassware, fine wall paper, watches, clocks, the better class of jewelry, fine cutlery, and a variety of other articles quite as germane to the drug business as soda water and cigars, and quite as dignified and profitable. Optical supplies are peculiarly appropriate, provided the druggist be familiar with the art of fitting glasses; the same is true of trusses and similar goods. In short, anything that will not detract from the dignity of the store and that is associated with education, home decoration, popular sanitation, and physical comfort, and that can be made to *sell*, merits the consideration of every druggist to the limit of his facilities. Insurance agencies, carefully chosen agencies for bicycles (with one or more samples to keep the soda fountain company), agencies for society engraving comprising specimens of styles and facilities for prompt estimates and execution of orders—all these can be made to contribute generously to the store revenues, and to fill in most agreeably and profitably many a leisure moment of the proprietor or clerk. We mention these additions not as desirable accessions to the "practice of pharmacy," but as proper extensions of the retail drug business in localities where an exclusively prescription or medicine trade would fail of adequate returns for all of the druggist's time and his incidental expenses.—*Western Druggist.*

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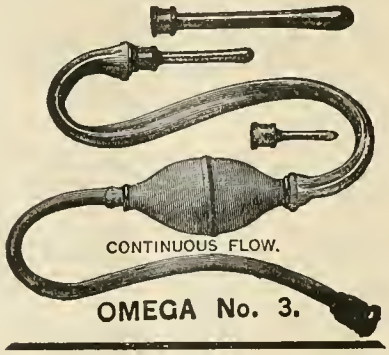

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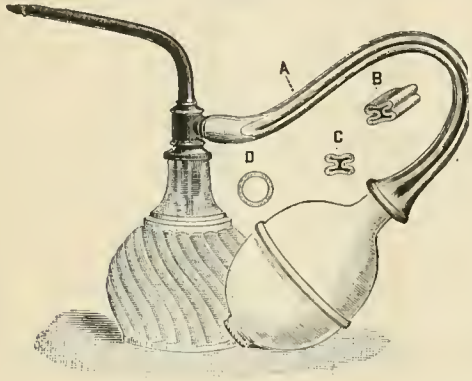

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American Pharmaceutical Association.

The council has by vote named Wednesday, August 14th, 1895, for the next meeting of the American Pharmaceutical Association, which is to be held in the city of Denver.

The arrangements for hotel accommodations and transportation have not yet been effected. As soon as completed they will be announced.

W. S. THOMPSON,
Chairman of the Council, American Pharmaceutical Association.

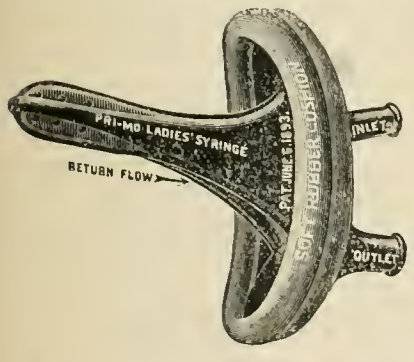
Washington, D.C., March 18th, 1895.

How to Join the American Pharmaceutical Association.

President Simpson has announced the members of the "Special Auxiliary on Membership." Each member has charge of the work of obtaining applications in his own state or province. If you desire to join the association, apply to your representative on the committee. The following are the Canadian representatives: Province of Ontario, John Lowden, Toronto; Province of Quebec, G. Lachance, Montreal; Nova Scotia, New Brunswick, and Prince Edward Island, F. C. Simson, Halifax.

The Council Committee consists of Dr. H. M. Whelpley (chairman), St. Louis, Missouri; Chas. M. Ford, Denver, Colorado; Geo. W. Voss, Cleveland, Ohio; Wm. C. Alpers, Bayonne, New Jersey; S. P. Walton, Atlanta, Georgia; and Geo. W. Kennedy (secretary), Pottsville, Pennsylvania.

The Pri-mo Syringe.



A sanitary article of value is quickly understood and as quickly appreciated by physicians, immediately they are given an opportunity to examine it.

A striking instance of this fact is well illustrated in the case of the new ladies' syringe, "The Pri-mo," which is being placed on the market by E. J. Hussey & Co., 80 John street, New York.

This high-grade instrument has improvements which are at once apparent, and a trial is sufficient to prove its great advantages over the regular syringe.

Its merit lies in the peculiar construction of the nozzle and shield. The nozzle is anatomically correct in design, superior in finish, comfortable and efficient.

The shield is provided with a soft rubber cushion, which makes it fit snugly about the parts which it closes completely.

With the Pri-mo Syringe much hotter water may be used than in the old way.

It is used without bed-pan or rubber sheeting, thus allowing the patient to take the douche in a recumbent position.

The nozzle and shield may be used with any fountain or bulb syringe.

Physicians throughout the country who have tried "The Pri-mo" recommend it. The testimony of a few are appended:

In reply to your inquiry will say that the Pri-mo Ladies' Syringe arrived safely, and it gives perfect satisfaction. I consider it indispensable, especially in such institutions as this, and a great comfort to any one using it.

Yours truly,
GEO. S. WALKER, M.D.,
Female Dept., Western State Hospital,
Staunton, Va.

The two Pri-mo Ladies' Syringes purchased of you have given entire satisfaction. They fully come up to what you claim for them. Please send me another No. 2 outfit at an early date.

Very truly yours,
AMOS H. ELLIOT, M.D.,
480 Munro St., Brooklyn, N.Y.

They are furnished in two outfits, viz.: No. 1, containing nozzle and shield, packed with 4 feet (¼ inch) outlet tubing, and No. 2 containing nozzle and shield, packed with a two-quart fountain bag, tubing, infant and rectal pipes, complete.

Each outfit is packed in a polished cherry wood box, which is lined with enamelled waterproof paper. Send for an illustrated pamphlet telling all about the "Pri-mo" Ladies' Syringe.

Wake Up!

When will the pharmacists of the world thoroughly realize that "the old times," when the apothecary did everything in the pharmaceutical line, have passed away, never to return, and that this generation must keep up with the procession or be run over? The apothecary of to-day does not powder roots, boil lead plaster, make his own chemicals, etc. Many of the old style of preparations, such as potions, poultices, decoctions, boluses, plasters, etc., have either gone out of fashion or are made by others. Modern prescriptions do not call for pills and powders by hundreds. Modern prescriptions are not confined to the official drugs and preparations of over-conservative pharmacopœias. They do call for modern and improved forms of medication. Modern physicians demand improved methods and preparations and greater exactness. They cannot stop to inquire why it is that the average retail druggist is not specially educated. They need the aid of thoroughly educated pharmacists capable of promptly responding to the new requirements of scientific progress. They not only need that aid—they will have it.

But the pharmacists as a body do not seem to respond promptly to these calls upon them, or to take an active and prominent part in the general progress of medicine and pharmacy. In our country it will require determined and continued effort to rehabilitate the profession of pharmacy. Yet some of our pharmacists, judging by their utterances, are on the point of becoming whining pessimists. Others have apparently plunged into unmixed commercialism.

There are very many progressive and able men practising pharmacy in America who are ambitious to protect, preserve, and advance their profession. If they will take united action they can unload the incubus of the patent-medicine traffic, and scrape off the other barnacles that impede pharmaceutical progress.

What is really being done for the future of American pharmacy? Much is done by the schools; but what are the pharmacists as a body doing to elevate their profession and establish a proper distinction between the mere merchant-druggist and the real pharmacist?—*Bulletin of Pharmacy.*

Resemblance Between the Reactions of the Alkaloids and Acetanilid.

E. Schaer (*Archives de Pharmacie*, *The Analyst*) recalls that Tofel has pointed out that anilids, such as acetanilid, give a reaction with sulphuric acid and an oxidizing agent which resembles the strychnine reaction. Fluckiger has drawn attention to a similarity between the reaction of morphine with sulphuric acid containing nitric acid and that of acetanilid with the same reagent. Schär has tested both these statements. He finds, with respect to the strychnine reaction, that this differs in two main points from that yielded by acetanilid. (1) The play of color shown by strychnine is from blue to methyl violet, whereas that exhibited by acetanilid is rather a blue-purple-red coloration. (2) The introduction of the oxidizing agent into the solution of strychnine in sulphuric acid induces a deep violet color, which gradually changes—through cherry-red, purple-red, and blood-red—to yellow-red, whilst in the case of acetanilid there is a rapid change from purple-red, through violet-red, into a dirty blue-green, olive-green, or brown-green. The reaction of sulphuric acid, containing nitric acid, on morphine and on acetanilid is certainly very similar; but acetanilid gives no reaction with sulphuric acid which contains selenic acid, titanic acid, molybdic acid, or tungstic acid, and thus should not be mistaken for morphine. Furthermore, morphine gives a deep red-brown color with sulphuric acid and bismuth subnitrate, whilst acetanilid gives a dark-yellow color, becoming carmine-red at the edges of the mass.—*National Druggist.*

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

APRIL 15TH, 1895.

Mutually Interested.

The Western District Medical Association of Toronto has again attempted to induce the members of the Toronto Retail Druggists' Association to stop renewing prescriptions without the order of the prescriber. A conference was held recently between representatives selected from both bodies,and the subject was freely discussed. On the part of the medical men no definite reason was urged why the practice, so universally adopted elsewhere, should be changed here, other than that occasionally prescriptions were renewed which were of a specific character, and only intended for temporary use, and which, if the prescriber had been consulted, would not have been repeated with their sanction.

On the part of the druggists, it was claimed that no desire existed on their part to renew prescriptions of such a character, or which might reasonably be considered dangerous or harmful if repeatedly taken. At the same time, they showed that it would be difficult, practically, to carry out the wishes of the Medical Association unless the members of that body were willing to share with them the responsibility for refusing renewals. It was urged that if any physician saw fit to write upon his prescription to the effect that it should not be renewed, the instructions would be rigidly adhered to. This, and this alone, the druggists claimed, was the first step needed to produce the result desired by the medical men, and, unless this was done, no very great diminution of the general practice of repeating at the demand of customers could be expected.

We have not yet learned what course the members of the Medical Association purpose pursuing, but, if they are determined to stop the custom of renewing, the remedy is entirely in their own hands,and it is purely a matter of judgment as to the wisdom of applying it. The druggists will follow instructions to refuse renewals if so given, and both they and the prescriber will have to assume the responsibility for curtailing a general privilege to the patient to renew as their judgment dictates.

It is very unlikely that druggists will antagonize their customers on their own responsibility by refusing renewals, and,if the physician is unwilling to share it, he must permit a continuance of the general custom. There is little doubt but that many prescriptions are renewed which would be better unfilled, and that in writing such prescriptions the physician should guard against renewal by writing upon it "not to be repeated." If this were carefully done, the welfare of the patient would be safeguarded, and the renewal could be as consistently refused by the druggist as by the doctor. On the other hand, the refusal to renew any and every prescription presented would place both doctor and druggist in a peculiar combination light before the community, and arouse a feeling detrimental to both.

Under the free-trade wave of popular opinion now prevailing, moderate and cautious action is very necessary. The patent medicine forces seem to be exrecising a powerful influence, and doctors and druggists should not take steps which might be apt to give them the dominant position.

The question of repeating is one of very considerable importance,and the handling of it should be done solely with a view to the welfare of the community, and not from any motives of gain. The doctor should not interdict renewals for such a purpose, and the druggist should exercise the utmost care and discretion in refilling, so that the cultivation of habits for seductive or harmful drugs may be avoided.

Our suggestion to both physician and pharmacist is to keep principle to the front and profit to the rear, and the solution of the question will resolve itself.

A Good Line.

Since the introduction in our columns of a department devoted to Photographic Notes, a number of druggists, who had not previously handled a line of photographic supplies, have acted on our suggestion and added this branch to their business, and, we are pleased to say, with satisfactory results. It is a line peculiarly adapted to druggists' trade, and one which, if properly looked after, will prove profitable and interesting.

As we pointed out in a former issue, the outlay for stock need not be large, and it would be injudicious, at least in the commencement, to purchase anything beyond what would be an experimental order, especially of those things which could not be sold to any but a photographer.

The experience of a few months will show just what chemicals are required, and the matter of the stock of appliances, such as cameras, lenses, etc., can be best judged after a little experience in other branches of the requirements necessary.

The fact that many druggists are themselves amateur, and in a few cases professional, photographers shows a commendable artistic taste, and at the same time provides an agreeable diversion from the stereotyped labors of the average retail druggist. To those who have not yet handled these goods, we would suggest that they look into the matter, and see if there is not an opening in their locality for a line of this kind. As a matter of pure business, we should always be on the lookout for any additional lines which will add to our sales, and the one here presented is one which must commend itself to many of our readers as being particularly adapted to a place in the stock of the progressive druggist; and, combined with this, we would recommend the art of photography as a pastime which would prove not only very interesting, but tend to divert the mind from the everyday worry and cares of business.

What Next?

"Vaccination" against diphtheria, as we suppose the process must be called until a name for it is invented, is now an accomplished fact, and the horse, it seems, is to be, like the cow in relation to smallpox, the intermediary and modifier. See the wonderful wisdom of Providence; nothing is lost, nothing wasted! When tallow began to get scarce and dear, coal oil was discovered. As timber in the older states thinned out and rails were rails, the barbed wire solved the fence problem. When the electric motor emancipated the horse and the patient mule from the street-car service, what to do with the horse became a problem, which the French solved by eating him. Behold! science has dedicated the emancipated animal to nobler uses, and he is not yet *hors de combat;* he is to be used to knock out diphtheria—a kind of *equine*-knocks, eh?—*M.R.R., in Exchange.*

An Irish chemist, anxious to display the qualities of certain vegetable dyes, has created no small sensation by trapping a number of sparrows which the intense cold has tamed, and dyeing their feathers, so as to make the rich blues and greens of the parrot, the sapphire tints of birds of paradise, and the prismatic hues of the humming bird. Bird-fanciers wereamazed at the phenomenon, but a close examination revealed the imposture, to the great amusement of the onlookers. Needless to say the enterprising trader has secured a huge advertisement by the transaction. —*Ex.*

TANGLEFOOT

SEALED

STICKY FLY PAPER.

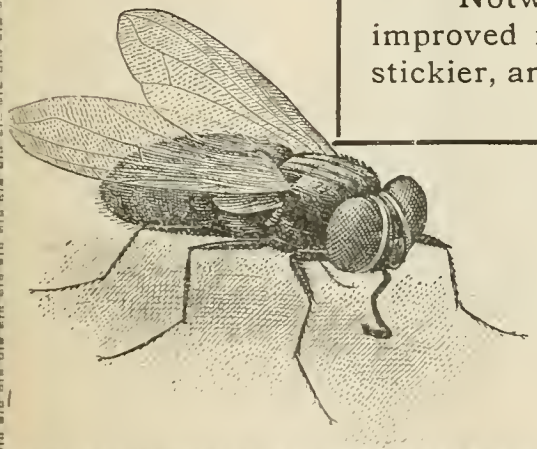
SELL THE BEST YOU CAN BUY

- - 1895 - -

ALL TANGLEFOOT is now made with the new Corrugated Border. This Border is an improvement on any of its predecessors—it restrains the sticky composition more securely, it opens more readily, and remains on the sheet. Always acts the same under all conditions. It is the perfection of Borders. (Patented Feb. 19th, 1895.)

Each case contains five of the New TANGLEFOOT Holders, with slides to raise the center of the paper. A sheet presenting a convex surface catches flies much faster than one lying flat. These Holders are nicely wrapped ready to hand out to a good customer for a present.

Notwithstanding the reduction in price the quality is improved in general. The paper is a little stronger, a little stickier, and will remain sticky a little longer.



Prices for the Regular Size, 1895.

LESS THAN ONE CASE, - 50 CENTS PER BOX.
ONE TO FIVE CASES, - - $4.75 PER CASE.
FIVE CASES AND OVER, - $4.50 " "

Each Box contains 25 double sheets.
Each Case contains 10 boxes.

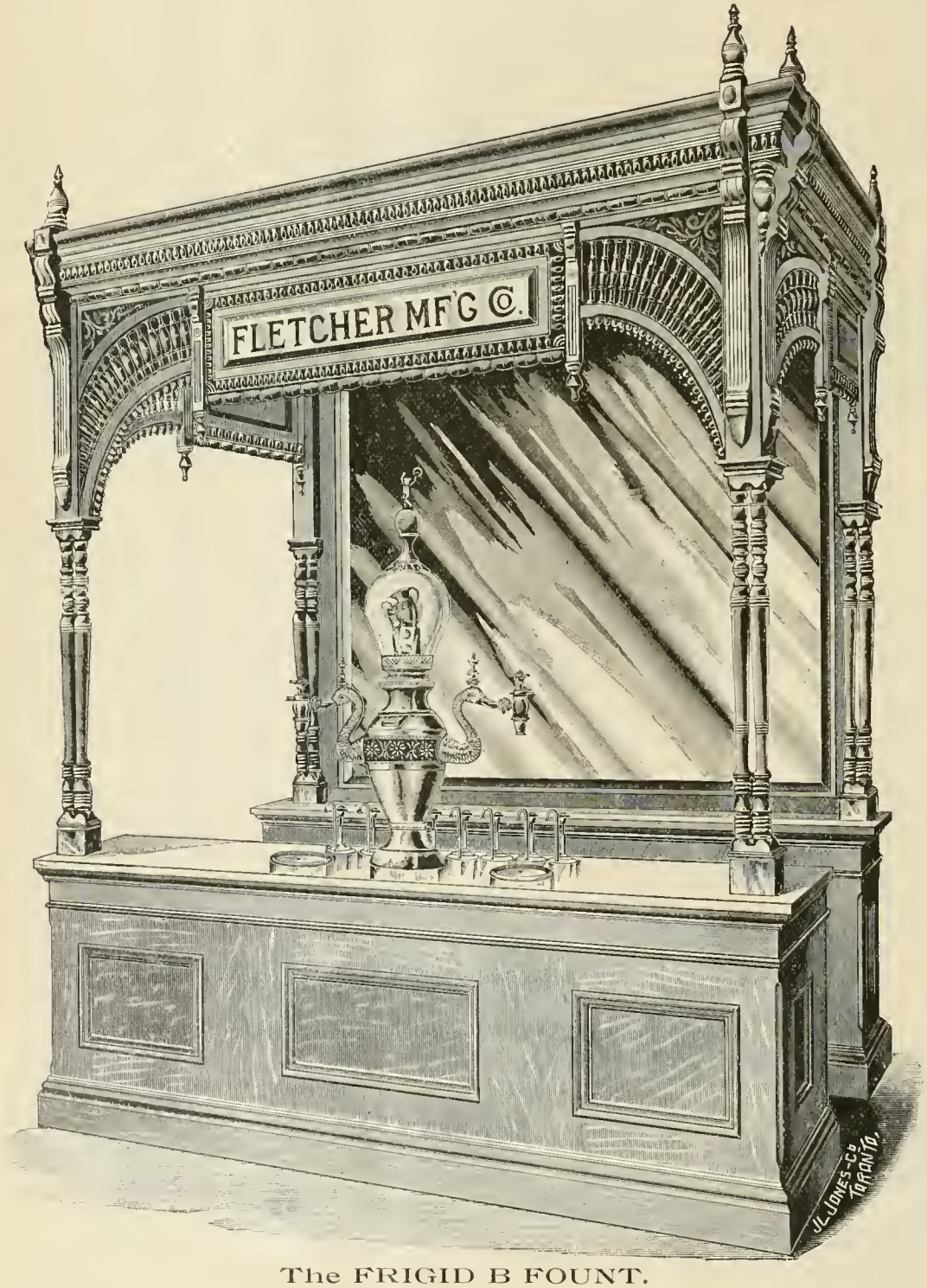
Fletcher Manufacturing Co.,

440 YONGE STREET, TORONTO.

Manufacturers of and Dealers in

Soda Fountains - Generators - Cylinders - Freezers

And every other article necessary for carrying on the Soda Water Business.



The FRIGID B FOUNT.

THE accompanying fount shows an entirely new idea for counter apparatus.

The Canopy is made from natural hardwood, highly finished.

The Fount is heavily silver-plated on pure white metal; all connections and attachments are made from pure block tin, thereby insuring Soda Water absolutely free from the metal poison so often found in old apparatus.

The Body of Fount is double, having a dead air space between inside and outside linings. Inside of this is a coil of block tin pipe, reaching to where our name-plate appears. This plate is hinged so that it may be raised when filling body with broken ice, for which we supply a special funnel free.

Fount has EIGHT PATENT PNEUMATIC SYRUP JARS and TWO PATENT DRIP PLATES fitted into slab under Soda Taps. These plates can be lifted out for purpose of packing ice around coolers and syrup jars.

Cooler box is fitted under counter, is easy of access, and no trouble to fill with ice.

We supply with the Fount: *Canopy, Marble Slab, Eight Patent Syrup Jars, Cooler Box, Six Silver-Plated Tumbler Holders, Twelve Tumblers,* and all connections and pipes ready for attaching to cylinder.

We make this Fount in Style A, without Canopy, and a smaller slab, but with all other attachments the same as Style B. F.O.B. Toronto. Counter extra in all cases. Any style made to order.

Dealers in Fruit Oils, Fruit Extracts, Flavorings, Etc.

WRITE FOR CATALOGUE

New Remedies and Chemicals.

The following list of new remedies and chemicals has been carefully compiled by the editor of the *National Druggist* from the pages of current chemical, medical, and pharmaceutical periodicals, mostly German and French, and is brought down to the middle of December, 1894. Some of the articles therein scheduled have been known for some time, but have not become familiar to the great majority of pharmacists, and we may add that, in the very nature of things, they will probably never become so. In almost every instance the name first given is that by which the substance is registered or patented, or both, and is therefore its *trade name*, in contradistinction to the name under which the substance is known in chemical nomenclature.

In all cases where the therapeutical, physiological, or pathological actions are given, it is well to remember that the statements are made almost solely upon the literature issued by the patentees, and therefore subject to revision when (if ever) the substance shall be tested by disinterested practitioners.

Abrastol.—Synonym for Cerebrin.

Acetono-Resorcin.—A combination of two molecules of resorcin and one molecule of acetone, obtained by heating together 15 gm. resorcin ; 100 gm. acetone, and 50 gm. concentrated hydrochloric acid. It appears as small anhydrous, prismatic crystals, insoluble in water, alcohol, ether, or chloroform, but readily soluble in alkalies.

Acid Isocampholic.—Friedel has given this name to a compound with the formula $C_{10}8_{18}O_2$, or the same as campholic acid. It is a portion of the residue in preparing the latter, and appears as a colorless oily fluid with an unpleasant, irritating odor, which boils at 180°-181°C., has a density of 0.9941. It is soluble in alcohol and ether, but nearly insoluble in water.

Agathin.—Synonym for Chelene.

Agopyrin.—Mixture of salicin ammonium carbonate and cinchonine sulphate.

Alphol.—A salicylic ether of alpha-naphthol, an isomer of betol (the similar ether of beta-naphthol). It is obtained by heating to 120°-130° C. a mixture of sodium-salicylate, sodium alphanaphtholate, sodium phosphate, and sodium chloride. Regarded therapeutically, alphol approaches salol. It is decomposed by the gastric and intestinal juices into salicylic acid and alpha-naphthol. It has been given with good results in cystites of gonorrhœal origin, and acute articular rheumatisms. The dose of the powder is from 50 cgm. to 1 and even 2 gm. (8 to 30 grains).

Aluminum Boroformate.—A new salt, intended as a succedaneum of alumnol, aluminum acetotartrate, etc., for which the hospitals of St. Petersburg have been using it. It appears as brilliant nacreous tablets, readily soluble in water, hot or cold.

Aluminol.—Aluminate of disulphonic *beta* naphthol.

Amidol.—Dramidophenol hydrochlorate.

Amylokarbol.—Name given by P. Kocks, Oppenheim, to a mixture of 9 parts of carbolic acid, 150 parts of green soap, 160 parts amylic alcohol, and sufficient water to make 1,000 parts.

Analgine.—Synonym for Creolin.

Anaspalin.—Mixture of lanolin and vaselin.

Angine.—Non-epurated wool-fat.

Anodine.—An antiseptic used in eye-surgery, the exact nature of which has not yet been established.

Antacidin.—Saccharate of lime.

Anti-bacterin.—Mixture of crude aluminum sulphate and lamp-black.

Antibenzinpyrin.—Constitution unknown (a patented substance which, it is claimed, prevents benzin, etc., from being struck by lightning).

Antidysenterin.—Mixture of pelletierine, extract of pomegranate, myrobaline, and excipient, made into pills.

Antifungin.—Magnesium borate.

Antinonnine.—This is a trade name for ortho-dinitrocresol. It is used as an insecticide for destroying insects on plants and trees. It is also coming into use as a wood preservative, and is employed as other substances of this description, either by planting it on the surface or imbibation. It seems to be a good all-round household disinfectant, which can be mixed with almost anything. Its most recent application is as an ingredient of preservative paints, for household and architectural uses.

Antiparasitin.—A proprietary for destroying parasites, vegetable and animal, infesting human beings and domestic animals. It is said to be efficient. The formula has not yet been made public.

Antiphthisin.—Klebsch's tuberculosis cure. It is also called sozalbumose, and is one of the "antitoxines."

Antipyonine.—Trade name of a polyborate of sodium. It is white, unctuous to the touch, insipid, and appears to be devoid of toxicity and causticity. In addition, it is extremely soluble in water. It is used in diseases of the eye, ear, etc., where it acts as a harmless but energetic antiseptic.

Antirheumatin.—According to Kamm, this is a combination of sodium salicylate and methylene blue. It comes into trade in the shape of blue prismatic crystals, easily soluble in water and alcohol, and tasting very much like sodium salicylate. After taking rheumatin the urine becomes blue or green.

Antisepcin.—Two substances have appeared under this name, viz., monobromacetanilid, and the serum of animals which have been treated with iodine terchloride.

Antispasmin.—Mixture of sodic narceine and sodium salicylate.

Antitetraizin.—A proprietary, put upon the market by Zambeletti, of Milan, as an antirheumatic and antineuralgic. It is claimed to be superior to phenacetin.

Antitoxins.—A name applied to a series of serum preparations, derived, by bacteriological processes, from the blood of animals rendered immune from certain infectious zymotic diseases, the specific causative (so-called *pathogenetic*) micro-organisms of which have been (or are supposed to have been) discovered, isolated, and propagated by means of pure cultures. The result of this cultivation is inoculated upon animals, and by successive inoculations the immunity above referred to is at length attained. The product of the blood of these animals, the serum preparations above alluded to, is called the *antitoxin* of the particular disease that was inoculated upon the animal. We thus have (or will have, if the "fad" continues) a series of antitoxins, such as diphtheria antitoxin, phthisis antitoxin, typhus antitoxin, etc.

Anytins and Anytols.—When gum or resin oils, mineral oils, etc., are acted upon by sulphuric acid, we obtain a series of substances which are either soluble in water or produce salts which are thus soluble. Helmers has given the name anytins to those of these substances which are soluble in alcohol. These anytins serve as solvents for a large number of substances (among them carbolic acid, the kresols, guaiacol, kreosol, thymols, the higher phenols, benzol and its homologues, terpenes, mineral and etheric oils, all the camphors, etc.). The substances thus rendered soluble in water are called anytols. Both names are patented.

Apyonine.—A succedaneum of yellow pyoktanin.

Aquozone.—A 2 per cent. aqueous solution of ozone, with hypophosphites.

Aromatine.—Coarsely powdered gentian root, used as a succedaneum of hops in brewing.

Asbolin.—Synonym for Fossilin.

Atherin.—An alcoholic solution of ammonium pyrogallate, employed in Australia, according to the *Chemist and Druggist*, as a brown hair-dye.

Benzacetin.—Acetamidomethyl salicylate. New antineuralgic.

Benzoparacresol.—Benzoylparacresol.

Bergamol.—Inolyl acetate (used in perfumery only).

Beta-Resalgin.—Trade name for Phenyldimethyl-pyrazolon beta-resorcylate, also called Resorcylalgin. It consists of 2 molecules of antipyrin and 1 molecule of beta-resorcylic acid.

Boral.—Aluminum boro-tartrate. Insoluble in water, but becomes soluble on the addition of tartaric acid. Used as a disinfecting astringent.

Borocarbide.—Borocarbide, a new material recently prepared in the electric furnace by the French chemist, Henri Moissan, is a compound of borax and carbon, and is excessively hard, cutting diamonds without difficulty.

Boroformate of Aluminum.—See Aluminum boroformate.

Borol.—Synonym for Gluside.

Brassicon.—A new headache remedy, a green-colored mixture, consisting, according to the *Suddeutsche Apotheker Zeitung*,

of 2 gm. oil of peppermint ; 6 gm. camphor ; 4 gm. ether ; 12 gm. alcohol ; and 6 drops of mustard oil.

Bromamide. — Bromanilin hydrobromate.

Butyromel.—A mixture of 2 parts fresh butter and 1 part of honey, rubbed together until a clear yellow mixture is obtained. It is used in preparing palatable preparations of cod-liver oil, and other rank-tasting oleaginous substances. Name proprietary.

Calcium Phosphoglycerinate.—A proposed succedaneum for calcium phosphate, made by heating together, under certain conditions, anhydrous glycerin and commercial phosphoric acid. Vol. xxiv., p. 175.

Camphar.—Fifty per cent. alcoholic solution of camphor, with the latter in excess.

Camphoide.—Solution in absolute alcohol of camphor and collodionated wool.

Cancroine.—Solution of neurine in carbolized water, with the addition of a slight amount of citric acid. Also applied to an extract obtained from cancerous tumors.

Cannabindon. — Derivative and supposed active principle of *Cannabis indica.* Vol xxiv., p. 251.

Caputine (also spelled Kaputin).—According to the *British Medical Journal* is simply acetanilid colored with some harmless color.

Cardine (also written Kardin).—One of the so-called "animal extracts," *à la* Hammond, obtained from beef hearts.

Cerberin.—A glucoside of the seed of a plant of the species *Cerbera* (Apocynaceæ), indigenous to Mexico. Its formula is $C_{25}H_{38}O_{12}$. It appears as a yellowish-white, amorphous powder, easily soluble in water and in alcohol. It seems to have the physiological action of the digitalis group, especially the heart action of the same. It is said to act as an antidote to digitoxin.

Cerebrine.—Another "animal extract," derived from brain substance.

Chelene (also written Kelene).—Ethyl chloride.

Chloralamide.—Chloroformamide.

Chloralose.—Condensation product of chloral and glucose.

Chloroiodolipol.—Another product of the laboratory of Zambeletti, prepared (by the substitution of various polyvalent phenols) from creosote and guaiacol. It is crystalline and well defined. Used in chronic affections of the larynx and respiratory viæ.

Chlorol.—Solution of sublimate and copper sulphate.

Chloryle.—Mixture of methyl and ethyl chlorides.

Chroatol.—New remedy in skin diseases, whose formula is not yet made known. It presents itself in the shape of crystals of greenish-yellow appearance, having a pronounced aromatic odor, insoluble in water, slightly soluble in ether and chloroform, but more so in alcohol and glycerin. Vol. xxiv., p. 205.

Chromogen.—Acid sodium salt of chromotropic acid (dioxanaphthalsulfonic acid).

Cinnamol.—Highly rectified oil of cinnamon.

Cocaine Phenate.—According to Viot and Oefele, a mechanical mixture of cocaine and phenol. Poinsot states that it also contains paraffin oil and peanut oil.

Cocillana.—A remedy derived from a plant of the family Meliaceæ. The part employed is the thick bark of the trunk and large branches. It has been found superior to apomorphine in affections of the respiratory organs, and those who have tried it give it preference over ipecacuanha. It is prepared in the form of a tincture, syrup, and fluid extract.

Coffearine.—Alleged new alkaloid of coffe, having the formula $C_{14}H_{16}N_2O_4$.

Collasin.—A varnish used in dermatology, consisting of traumaticin and collodion.

Copraol.—A solid fat, derived by special treatment, from the cocoanut. Used as a substitute for cacao-butter in making suppositories, etc. It has a much higher melting-point than the butter, and seems to be an article of real merit.

Crelium.—Cresolated soap. Also written Krelium.

Crystallin.—Collodion cotton dissolved in methylic alcohol.

Curcin.—The name given by Siegel to the toxical principle derived by him from Jatropha curcas, one of the family of Euphorbiaceæ. It is an analogue of ricin, and is classed, along with the latter, among the toxalbumins.

Cutal.—A preparation similar to Boral, and is a borotannate of aluminium. It is soluble in water, and contains 76 parts of tannin, 13.23 parts of kaolin, and 10.71 parts of boric acid. It has the same uses as Boral.

Dextrococaine.—Iso-cocaine.

Diabetine.—Lævulose.

Diodoform. — Ethylene tetriodide ; a definite carbon diiodide containing 4.62 parts of carbon, and 95.28 parts of iodine, and nearly answering to the theoretical C_2I_4 (*i.e.*, carbon 4.51, iodine 95.49). Odorless, insoluble in water, slightly soluble in ether and chloroform, etc. Carbon disulphide is a good solvent for it. Vol. xxiv., p. 19.

Diuretin, Diuretin Benzoate.—Mixture of sodic theobromine and sodium benzoate.

Dulcine.—(See Sucrol).

Eitnerin.—The name given by Gehe & Co. to a substitute for yolk of egg, put upon the market by them. It is claimed to have many uses, but the chief one, so far, is in tanning and finishing fine leathers.

Emol.—Lardite.

Emulsin.—This substance, according to the *Journal der Pharmacie von Elsass-Lothringen*, is a form of paraffin oil, oxidized under pressure. It appears as a neutral, odorless, oily liquid, which forms a stable milky solution in water, and is, therefore, recommended as a material for emulsions. The *Pharmaceutische Centralhalle*, commenting on the above, says that, as far as can be judged from these claims, emulsin seems to be identical with or very similar to vasogen, described in this journal two or three months ago. We would also call attention to the fact that the name emulsin has already been given to the fermentive principle of sweet almonds.

Entomfobo.—A preparation for "destruction of insects by the evolution of ozone" (!), put on the market by Leonardi, of Venice. Examination shows it to be simply a tincture of pyrethrum flowers. It is used as a spray.

Ergotine Gallate.—Mixture of extract of ergot and gallic acid.

Ethylendiamine Tricresol.—A mixture of 19 parts each of ethylendiamin and tricresol, dissolved in 500 parts of distilled water. It appears as a clear, colorless liquid, becoming slightly yellow on exposure to the air. It has an alkaline reaction, and metallic instruments are not attacked by it when in dilute solution.

Euchlorin.—A new diphtheria remedy. It is prepared by placing in a dry glass 1.50 gm. potassium chloride and adding 10 drops of hydrochloric acid. As soon as the gaseous reaction ceases, add sufficient water to make 200 gm., and stir well. Used as a gargle, etc., and also given internally, a few drops every hour.

Eulyptol.—A name proposed by Dr. Schmelz, of Nice, for a mixture of carbolic acid, salicylic acid, and eucalyptus oil, in equal parts.

Ferratine.—A name given to an iron albuminate which carries 7 per cent of metallic iron.

Formaline.—Forty per cent. aqueous solution of formaldehyde.

Formalith.—Diatomaceous earth saturated with formaline.

Gallal.—Aluminum gallate.

Gallanol.—Gallic acid anilid. Also written Gallinol.

Gallobromol.—Dibromogallic acid.

Gelatol.—Name given a new ointment basis, consisting of oil, glycerin, gelatin, and water.

Glycine.—A photographic developer whose formula is yet unknown.

Hæmatogen.—An iron albuminate derivative, very similar in composition to ferratin. An alkaline solution of iron albuminate is decomposed by the addition of iron citrate and acetic acid, the hæmatogen falling as a precipitate. It is a soft, yellow powder, containing about 7 per cent. of iron, easily soluble in alkaline fluids. It is recommended in rachitis, anæmia, scrophuloses, etc.

Hæmol.—A black, or dark-brown powder, obtained by the action of zinc upon defibrinated blood, and said to contain 1 per cent. of soluble iron.

Hæmostatine. — An extract obtained from the thymus of veal, containing sodium hydrate, with the addition of calcium chloride.

Headine.—Mixture of acetanilid and sodium dicarbonate.

Iatrol.—Oxyiodethylanilide.

Ilicen.—Drs. Schneegens and Bronnert, of Strassburg, communicated the following information concerning this new glu-

coside to the *Deutsche Sammlung Naturforscher und Aerzte*, at Vienna: When the bark of the *Ilex aquifolius* is exhausted with ether, and the residue of evaporation is saponified with alcoholic potash solution, a new carbohydrate is obtained, *Ilicen*, which exists in the bark in combination with the fatty acids. Ilicen crystallizes out of alcohol, forming needles which melt at 182°-183 C. It is but sparingly soluble in alcohol, and insoluble in water.

Ingestol.—A citron yellow liquid, slightly opalescent, said by the exploiters (Richter & Co., Berlin) to consist of magnesium sulphate, sodium sulphate, potassium sulphate, sodium chloride, spirit of ether, and iron. Said to be an excellent remedy in chronic stomach and bowel troubles, especially of children.

Iodcaffeine.—Mixture of caffeine and sodium iodide.

Iodocasein.—A new antiseptic preparation, appearing under the form of a yellow powder, having a very feeble odor of iodine, which, it is stated, can be got rid of by greater care in preparation. It is used in powder form, and also for impregnating gauzes.

Iodethylum Camphoratum. — A new cholera cure, very highly recommended by Vielgluth. It is used in subcutaneous injections. No hint is given as to the method of preparation, but it is probably a solution in camphor in iodethyl.

Iodolin.—Chloriodate of methylchloroquinolin (?).

Iodotheine.—The same as iodocaffeine.

Iodotheobromine.—Mixture of theobromine and sodium iodide.

Ionone.—Odoriferous principle of the orris-root.

Iodphenochloral.—A mixture of equal parts of tincture of iodine, carbolic acid, and chloral hydrate. It appears as a brown liquid, which must be preserved with great care. It is recommended as a parasiticide in certain skin diseases.

Izal. — A new, non-toxic antiseptic, from English sources. It appears as a dark-brown liquid, which becomes milky on the addition of water. It is a by-product of the coal-tar industry, and is claimed to contain no phenol, but does hold analogous terpenes. It is probably a cresol preparation.

Kamalin.—Substances identical with Mallotoxin and Rottlerin.

Kaputin.—See caputin.

Kardin.—See cardine.

Katharine.—Trivial name given to tetrachlormethane or carbon tetrachloride, $C Cl_4$.

Kelene.—See Chelene.

Kreplinum.—Trade name for a solution of quillaya bark in dilute alcohol (containing 25 per cent. of alcohol), to which is added oil of rosemary, lavender, or other perfuming oils.

Lactol.—This is also known as lactonaphthol, and is lactic ester of beta-naphthol, a body resembling in its composition benzonaphthol. In the intestines it is decomposed into lactic acid and naphthol, and may be safely used in all cases where the disinfection of the intestines by means of naphthol is desired. Lactol is entirely tasteless.

Lactophenine.—Phenacetine in which the acetyl group is replaced by the lactyl group.

Lanaine.—Purified wool-fat.

Lignosulfin.—A product occurring in the manufacture of sulfi-cellulose, containing free sulphurous acid, and the same combined with the volatile products of wood. Used in the disinfection of dwellings.

Lintine.—Cotton lint, deprived of its oil and fats.

Lithium-Diuretin.—Mixture of lithiated theobromine and lithium salicylate.

Llareta.—This is a preparation of *Haplopapus llareta*, a plant indigenous to Chili. The fluid extract is recommended by Dr. Infante in the treatment of blennorrhagia, causing, according to the doctor, cure in from ten to fifteen days.

Loretin. — Iodoxyquinolino-sulphonic acid. It appears as a yellow, crystalline, inodorous powder, but slightly soluble in water, alcohol, ether, and the oils. In its quality as an acid, it forms with metallic oxides, some of which are soluble and some insoluble. Sodic loretin dissolves easily in water, giving an orange-colored solution which, in a strength of from 2 to 5 per cent., may be employed as a wash, or as a humid dressing, to supplant solutions of phenol. For further notice of this interesting substance and its compounds, see Vol. xxiv., p. 40.

Lysidin.—Also called methylglycoxalidin, a light red crystalline, very hygroscopic body, having the formula $C_4H_8N_2$. It is easily soluble in water, and is recommended in aqueous solution as a succedaneum of the carbonate of lithium in the treatment of diseases arising from uric acid diathesis (gout, rheumatism, etc.).

Malacine.—Trivial name of a salicyl derivative of phenacetine. It appears as little crystals of a pale yellow color and of a feeble and not unpleasant taste; soluble in hot alcohol, but insoluble in water. All the mineral acids, even in high solution, decompose it into salicylic aldehyde and phenacetin. It is said to have a remarkably gentle and yet powerful effect in rheumatism.

Maltol.—An inodorous substance, soluble in all proportions in hot water, chloroform, and acetic acid; but slightly soluble in cold water and benzin; freely soluble in alcohol, ether, etc. It melts at 150° C., and has the formula $C_6H_6O_3$. It is a constituent of malt caramel, from which it is obtained by condensation of the empyrheumatic vapors produced in the torrefication of malt (in the preparation of the so-called malt-coffee).

Methylene.—Mixture of 4 volumes of chloroform and 1 volume of methylic alcohol.

Metol.—Synonym for Sozal.

Migrainin.—According to Hoffman's analysis, a mechanical mixture of 89.40 parts antipyrin, 8.20 parts caffeine, 0.56 parts citric of acid, moisture 1.84 part.

Nasrol.—Sodium caffeinosulphonate.

Neurodine.—This is a congener of thermodine, being acetyl *p*-oxyphenylurethane. It presents itself as inodorous, colorless crystals, slightly soluble in cold, and more freely soluble in hot water. Recommended by the regular "touts" for certain foreign chemical and color works as a wonderful analgesic and nervine.

Nico.—Nickel carbonyl oxide. Synonym for Symphoral.

Nutrin.—Strohschein, of Berlin, has put an artificial food on the market under this name, which the label assures us is "the pure nutrimental part of meat." Analysis shows it to contain albumen, 83.5 per cent.; fat, 6.1 per cent.; nutrimental meat salts, 4.9 per cent.; and water, 5.5 per cent., an apparently valuable nutriment.

Odontodol. — Proprietary name for a toothache remedy, consisting of 1 part of cocaine, 1 part essence of cherry-laurel, and 10 parts of tincture of arnica.

Oenoglucose.—New form of grape sugar of great purity.

Oleocreosote.—Mixture of etheric creosote and oleic acid.

Oleoguaiacol.—Mixture of etheric guaiacol and oleic acid.

Orchidin.—A name given to the sterilized aqueous extract of testicular matter, having the advantage over the Brown-Séquard liquor of being free from albumins. It, however, possesses the same quantity of leucomaines.

Orthin.—Synonym for Thermodin.

Ozalin.—A disinfecting mixture, of which the proprietors are silent as to composition. Analysis shows it to consist principally of the sulphates of calcium, magnesium, and iron, mixed with magnesia and quicklime.

Paraform.—According to Aronsohn, a polymerid of formaldehyde, obtained by heating the aqueous solution of the latter (formalin, formol), which is transformed into paraform. It is a white, crystalline substance, insoluble in water, acting as an intestinal antiseptic, said to be superior to iodoform, *beta*-naphthol, dermatol, benzo-naphthol, etc. It is given in doses of from 3 to 5 gm., and is also employed as an external antiseptic dressing.

Pheduratin.—A phenol derivative of unknown constitution.

Phenosalyl.—A mixture of phenol and salicylic, benzoic, and lactic acids. When first introduced menthol was used in the compound in place of benzoic acid.

Phenoxin.—Trade name for carbon tetrachloride.

Phenylon.—Synonym for Antipyrin.

Phosphorine.—Name given to a mixture of iron chloride and phosphoric acid, to which glycerin is added.

Picein, Piceol, and Levoglucosane.—The first is a glucoside of Pinus picea, having the formula $C_{14}H_{18}O_7$, H_2O. Piceol is a derivative of picein, the latter decomposing under the influence of emulsin into glucose and piceol. Levoglucosane is another derivative of picein, which is obtained by treating the latter with baryta. Picein is but slightly soluble in cold

water and cold alcohol, but dissolves with ease in both substances when boiling. It is soluble in all parts in acetic ether, but insoluble in chloroform and sulphuric ether. Its physiological action has not yet been fully determined.

Pixol.—Mixture of caustic soda, wood tar, and soap.

Polysulfin.—Claimed by its manufacturer to be a sodium pentasulphide, but shown by analysis of R. Rau (*Pharmaceutische Centralhalle*) to consist of traces of free sulphur and sodium thiosulphate, 5 per cent. of sodium chloride, and 60 per cent. of sodium carbonate, the balance being water. In other words, this is impure sodium carbonate, or commercial soda with a little sulphur dusted in.

Reducine.—A photographic developer of unknown constitution.

Resol.—Wood tar saponified with potash lye, with the addition of methylic alcohol.

Resorbine.—Unguent base, containing oil of sweet almond, wax, gelatin, soap, and water; or, in other words, a very thick emulsion of oil of sweet almond.

Resorcylalgine.—Condensation product of antipyrin and resorcin.

Resorcinol.—Equal parts of iodoform and resorcin heated together.

Retinol.—Essential oil derived from resin.

Réuniol.—A substitute for attar of rose, recently patented in Germany. It is said to be derived from Algerine, French, and Réunion geranium oil. It belongs to the alcohol series, closely allied to geraniol, and, like it, forms one of the principal constituents of attar of rose. Unlike geraniol, it is said to be economical in use, to resist oxidation, and to resemble the aroma of the tea rose. Pure Réuniol is colorless, but in the course of manufacturing it often acquires a slightly bluish tinge. It is soluble in alcohol, fats, and fixed oils.

Rhinosclerine.—A name given by Pawlowsky to an animal extract similar to tuberculine, made from cultures of the bacilli found in the nose in rhino-scleroma.

Rhodalin.—Thiosinamin.

Rixolin.—Mixture of petroleum and light oil of camphor.

Rosinol.—The same as retinol.

Salacetol.—Condensation product of aceton and salicylic acid.

Salactol.—A combination of sodium salicylate and sodium lactate, dissolved in 1 per cent. hydrogen peroxide solution. Recommended in diphtheria.

Salantol.—According to Bourget, this is a compound of salicylic acid and aceton, possessing about the same properties of salol. It is not attacked by the gastric juice, and is decomposed only in the intestines, separating into its component parts of salicylic acid and aceton. It is recommended in the treatment of diarrhœa.

Saligenin.—The active principle of salicin, obtained by decomposition of salicin, by means of ferments, glucose being the remaining product. Saligenin, by the action of oxygen, is converted into salicylic acid.

Salocol.—Salicylate of phenocol.

Salubrine.—A composition hailing from Sweden, and containing, according to Hager, 2 per cent. of anhydrous acetic acid, 25 per cent. of acetic ether, 50 per cent. of alcohol, and the balance of distilled water. It is antiseptic, astringent, and hæmostatic, and is used, diluted with water, as a gargle, and on compresses.

Salumin.—According to the *Pharmaceutische Post*, this is an aluminum salicylate, insoluble in water or alcohol. With ammonia it forms a neutral double salt, soluble in water and in glycerin. This salt, according to Dr. Heymann, of the Berlin faculty, exercises an astringent and irritating effect on the mucous membranes, and therefore it may be employed with advantage in insufflations and applications to the air passages in the treatment of ozœna and dry pharyngitis.

Sanatol.—Crude cresol-sulphuric acid. Also written sanatol.

Sanguinol.—A preparation from beef blood of unknown constitution. [Later information states that it contains iron, manganese, and the normal blood salts. Ed. *National Druggist.*]

Saprol.—Also known as *abrastol*, a sulphon derivative of beta-naphthol.

Sedatine.—Formerly used as a synonym of antipyrin; more recently it has been adopted as the trade name of para-valerylamidophenetol.

Sequardine.—Sterilized testicular extract.

Septemtrionalin.—Alkaloid of *Aconitum septemtrionale*. Its physiological action resembles that of curare, for which reason it is employed in vivisections. It is also recommended as an antidote to strychnine.

Sodium Chloroborate.—Effloresced borax treated with chlorine.

Soltinol.—Constitution unknown as yet.

Sonatose.—Preparation of albumose.

Steresol.—Alcohol solution of gum lac, benzoin, tolu balsam, phenol, oil of ginger, and saccharin.

Sterilisateur.—Aromatic vinegar, containing free hydrochloric, citric, and tartaric acids, and saccharin.

Sublimo-phenol.—Name given to a phenolated mercuric chloride, or rather a chloro-phenolate of mercury, obtained by Desesquelle in slightly warming together an aqueous solution, including one molecule of potassium phenolate, and a similar solution containing a molecule of bichloride of mercury. When the two solutions are brought together under a gentle heat, a precipitate is thrown down which, on first forming, is of a brick-red color, which soon passes to yellow, and ultimately becomes white. The product assembled and washed is treated with boiling alcohol of 95°, and on cooling of the liquor the sublimo-phenol is deposited in colorless crystals. These crystals melt and decompose at about 210°C. They are exceedingly soluble in fused phenol, and also in boiling aqueous or alcoholic solutions of phenol. Used in antiseptic surgery.

Sucrol.—Synonym for dulcin; chemically, paraphenetol carbamide.

Sulphinol.—A white powder, consisting of boric acid, borax, and sodium sulphide. It is soluble in 10 parts of water, or in 20 parts of glycerin.

Sulphophon.—A mixture of zinc sulphide and calcium sulphate.

Symphorols.—A generic name for the caffeine sulphates or sulpho-caffeinates. Thus, sodium sulpho-caffeinate is called sodium symphorol. Similar compounds are lithium symphorol, potassium symphorol, etc. These new remedies, especially sodium symphorol (formerly called *nasrol*), are employed as valuable diuretics in dropsy, and affections of the heart and kidneys. Lithium symphorol has been used with good effect in rheumatism, calculous affections, and the uric acid diathesis, etc. The strontium salt seems useful in inflammatory conditions of kidneys.

Tannal.—A tannate of aluminum, which is of itself insoluble in any of the ordinary solvents, but when combined with tartaric acid it makes a double salt that is exceedingly soluble. It is an energetic astringent, from which Heymann has obtained excellent results in the treatment of rhinitis, pharyngitis, and catarrhal laryngitis. He employs tannal in the form of insufflations, and the tanno-tartrate, dissolved in water or glycerin, as a gargle or as a spray, in these diseases.

Tannigen.—A name given by Beyer & Co., of Elberfeld, to acetyl-tannin, new astringent for internal use, discovered by H. Meyer. It is an ethereal compound of tannin, insoluble in the stomach, but readily soluble in the duodenum as soon as it comes into contact with the pancreatic juice. It appears as a yellowish-gray powder, free from taste and smell, very slightly hygroscopic, and which, dry, can be heated to 108° C. without alteration. When this degree of heat is passed it becomes brown and melts. In water at 50° C. it is converted into a honey-like mass, which easily draws out into threads. It is scarcely affected by cold water, or by dilute acids. It promises to be of value in dysenteries and relaxed conditions of the lower bowels.

Tetanus-antitoxin.—A preparation made by Tizzoni and Cattani of the blood of horses and dogs that have been inoculated with tetanic virus. It comes from the laboratory of Merck, and is, in all probability, another of the Koch series of "fads."

Thermodin.—Acetyl-oxyphenylurethane. It appears as an inodorous, colorless, and crystalline substance, almost insoluble in cold, and but slightly soluble in hot water. Recommended as an antineuralgic.

Thioform.—Bismuth dithiosalicylate.

Thiosapol.—Soap containing sulphur, chemically combined.

Thiuret.—Product of oxidation of dithiodiurate of phenyl.

Thymacetin. — Ethoxy--aceto--amido--thymol.

Tolilantipyrin.—Tolypyrin (below).

Tolypyrin. — Paratolydimethyl-parazo-

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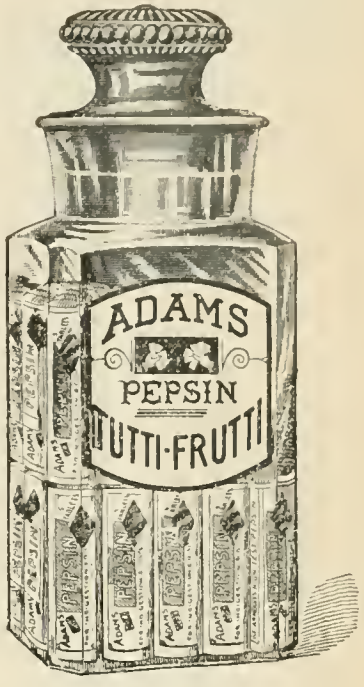

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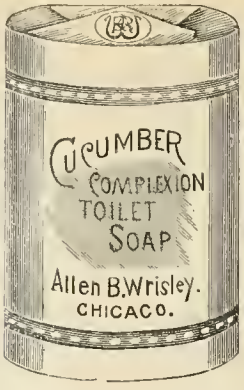

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MANUFACTURER OF

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Pure Spirits

Rye and Malt Whiskies

"OLD TIMES" AND "WHITE WHEAT"

one. (See *National Druggist*, October, 1, 1893, page 121.)

Trefusia.—Natural iron-albuminate.

Tricresol.—Sometimes written *trikresol.* Mixture of the three cresols of coal and wood tars, purified to the highest degree. So says Schering, its patentee.

Triformol.—Identical with paraformaldehyde.

Tumenol.—Sulphonated preparation of bituminous oil

Tussol.—Name given by Dr. Rehn, of Frankfort-am-Main, to a benzoic compound of antipyrin, manufactured by the Hoechst Color Works. It is declared to be valuable in treating the coughs of childhood.

Ulyptol.—See *Eulyptol.*

Urethylane.—Ethyl-urethane.

Urecidin.—Mixture of sodium sulphate, chloride, and citrate, and lithium citrate in the form of a granular salt.

Urepherin.—Mixture of lithiated theobromine and lithium salicylate. See *Lithium Diuretin.*

Ursone.—Proximate principle of uva ursi.

Valzine.—Synonym for sucrol.

Vaselin, Oxygenated.—See *Vasogen.*

Vaselone.—A product analogous to vaselin having recently appeared in commerce, and whose composition, etc., was kept secret. M. Villon undertook its analysis, and now writes to *Le Monde pharmaceutique* to say that vaselone is a mixture of stearone and margarone, dissolved in neutral mineral oil. The product resembles vaselin in most of its characteristics, being white, odorless, neutral, and not attackable by mineral acids or other chemical reagents. It is, however, not so translucent as vaselin. Its chief use seems to be in perfumery, though it is recommended as a substitute for vaselin in pharmacy.

Vasogen.—This is the trade name for *Vasolinum oxydatum.* It is described by Dr. Max Dahmen, of Krefeld, in the *Pharmaceutische Zeitung.* The new product makes an emulsion with water without any addition, and the product seems to be a permanent one. It is also a solvent for many otherwise difficult soluble medicaments, among them iodoform, creosote, ichthyol, menthol, chrysarobin, pyrogallol, chloroform, camphor, pyoktannin, etc. By means of vasogen these remedies may be employed in dressing wounds, ulcers, etc., on the mucosa, as well as the skin.

Vasogenin —Vasogen ointment base.

Vitalin.—A solution of borax in glycerin. —*National Druggist.*

Don't keep a bank account at the expense of your creditors.

Never trust the man who says he don't care to make money.

Your best friend is sometimes the deadbeat who hates you.

The way to find luck is to work for it, not talk about it.

How to Make the Business Pay.

This is a question that we have all of us asked ourselves most frequently and persistently during the last two years. It is one that has kept many of us awake, cudgelling our brains, many and many a night, or has let us go to sleep with its echo still whispering in our ears. In trying to formulate a plan, certain things have occurred to me which may be of service to my fellow-tradesmen, especially those in towns and villages outside of the great cities. The first proposition is, and I will elevate it to the dignity of

MAXIM NO. 1.

Keep up your stock. Carry, if you please or can, a full line of everything, but at any rate never get out of those things best adapted to your section of country, and most frequently demanded by your customers. As to what might be considered a full line, opinions will vary according to the different localities. It is, unfortunately, true that a large portion of articles, formerly staple in the drug trade, and belonging to it alone, are now carried by the "stores." Some of these articles we can well afford to relinquish, and be better prepared to turn our attention, our practical and scientific knowledge, to more reliable sources of trade and profit.

If the pharmacists would concentrate their efforts and their capital; would cease to attempt to carry those articles that have become the common property of the "calico-butter-eggs and quinine pills pharmacies," and would leave the handling and sale of all such articles to the "stores," the reputable manufacturers would regard us as worthy of more consideration than mere shopkeepers.

The retailer can so regulate his business, if the proper care is taken, and need never, except in some miraculous and unprecedented rush of custom (which may the Lord send at once, and frequently thereafter !), be forced to confess himself "just out" of something that he ought to have plenty of.

MAXIM NO. 2.

The groceryman and the stores have invaded your business—*you must invade theirs.*

This may seem contrary to what I have just said, but it is not so. There are a number of things of which in former times the apothecary had absolute control and monopoly, not only by custom, but by law; but the grocer stole them from us so long ago that he has acquired a title thereto by lapse of time. If my readers will go back over the files of the *National Druggist* for 1892 and 1893, and read the entertaining and instructive articles on "Pharmacy in the time of Moïse Charas," and other articles on the history of pharmacy, he will see that *then* the apothecary *alone* could sell spices, fine table oils, pure wines and liquors for medicinal and even family use.

Take away from the grocer and the "store" their trade in *pure* spices, *pure* table oil, *pure* wines and liquors, *pure* tea, *pure* and fine confectionery, etc. Do this by providing for your custom the *best that money can buy.* Guarantee their quality with YOUR OWN LABEL attached to each and every package, in addition to those of the manufacturer, the wholesaler, or the importer. Make (and keep) a reputation for your goods on quality, remembering that reputation makes repetition of custom an assured fact.

How would such a sign as the following look to the passer-by ?

JOHN SMITH,

PHARMACIST ON MODERN PRINCIPLES.

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Headquarters for

Accuracy in Dispensing.

Honesty in Dealing.

Purity of Materials.

—

Substitution in No Form Tolerated.

Now, if you were hunting for an apothecary to fill a prescription, or wanted to buy the best of anything, would you not walk right in and give John Smith your order ? I would.

MAXIM NO. 3.

Maintain your dignity, but do not let superciliousness and false pride pass for dignity. If your trade demands that you should keep in stock (and in villages and small towns it will demand it) hair-pins, toothpicks, spectacles, jewelry, keep them, and sell them, but *do it as a merchant.* Remember that pharmacy has two sides, the professional and the mercantile, and that in the latter, when we go outside of true pharmacy, as we are forced to do by custom and the existing order of things, we do it simply as merchants, and not as pharmacists. Display your wares, advertise them in whatever manner may seem best, but remember: *Don't make a "Racket shop" of your pharmacy.*

MAXIM NO. 4.

Don't be greedy. Demand and receive a fair profit for all you sell, but do not try to get rich all at once. This needs no explanation. Every reader knows just what I mean, but I will add to this rule one more—Do not expect to do all the business; don't be worried if you happen to see a customer going into Jones' shop. Jones must live as well as yourself. To conclude, in answer to the query, How is money to be made in the retail drug business ? I will sum up:

(1) Conduct your pharmacy on purely business principles.

(2) Carry a full and genuine stock of things demanded by your trade.

(3) Carry a side line of articles such as I have suggested, and such as your own good sense and judgment will dictate, and make a reputation upon the quality and purity of all that you carry. To do this, *avoid substitution.*

Do these things, and you will not only be successful in business, but you will be so with a clear conscience, which is more than gold and rubies.—*T. A. Moseley, in the National Druggist.*

Borax in Pharmacy.

THE ADDITION OF GLYCERIN TO BORAX PREPARATIONS.

The fact that glycerin, when added to aqueous solutions of borax, decomposes the latter with formation of free boric acid is well known.

The frequently asked query: What is the cause of the effervescence in preparing Dobell's solution? finds its explanation in this manner, also the pharmacopœial identity test for glycerin.

The same reaction may take place in other instances, perhaps less frequently, yet being at times of importance at the dispensing counter, occasionally requiring some reflection before unlooked-for phenomena are satisfactorily explained.

Some weeks ago a mixture consisting of aqueous tincture of rhubarb and glycerin was found to explode when dispensed in a well-filled bottle.

When this mixture was prepared in an open vessel, distinct effervescence could be observed on standing.

Tinctura rhei aquosa, a preparation frequently prescribed by German practitioners, contains, besides the active vegetable ingredients, borax and potassium carbonate.

The glycerin decomposes the sodium borate, with liberation of free boric acid, and the latter is again neutralized by the potassium carbonate present with evolution of CO_2.

The expansion of this gas renders the bottle holding this mixture liable to fracture.

BORAX IN UNGUENTUM AQUÆ ROSÆ.

Several objections have been made against the addition of borax to the cold cream of the new Pharmacopœia.

The action of the borax upon salts of mercury and the alkaloids appears to be the chief objection.

The addition of glycerin to cold cream, as sometimes ordered extemporaneously in prescriptions, will also decompose the borax in the manner mentioned.

Borax appears to possess some saponifying action upon the fatty ingredients, and if glycerin is subsequently added boric acid is liberated, changing the reaction of the ointment from alkaline to acid.

It would be interesting to know whether this would produce an impairment of the preparation as to its medicinal value.

GLYCERIN AND SOME BAY RUM SAMPLES.

The pharmacopœial bay rum formula is not satisfactory to many pharmacists on account of the almost colorless appearance of the product.

In their efforts to cater to the popular taste, they prefer to have the preparation of a bright yellow, or even yellowish-brown color.

To effect this, some follow the practice of macerating bay leaves or tumeric, or both, in the solution of the oils, while others add solution of potassa to the oils of bay and allspice before dissolving them in alcohol.

Some also dissolve a certain amount of borax in the water before it is added to the alcoholic oil solution.

Still others use the potash solution and make the borax addition besides.

When the last method is employed, the bay rum will possess a handsome yellow color.

But if the preparation, thus prepared, is mixed with glycerin, the effect repeatedly mentioned takes place, namely, the borax is decomposed and the acid liberated.

This effect may readily be observed after the glycerin addition.

The mixture will decolorize, the yellow color almost entirely disappears, and the previously alkaline bay rum will turn distinctly acid to test paper.

Other illustrations may be mentioned, where chemical incompatibility may arise between borax and glycerin, but a little reflection will readily indicate the liability of its occurrence.

In the preparation of toilet washes, in which it is desirable to keep the borax unchanged, this fact must be considered with care.

One point we may, perhaps, call attention to, namely, the chemical incompatibility of borax with fluid extracts and tinctures containing glycerin.

Astringent fluid extracts, such as those of sumach berries, rose, etc., as a rule, contain glycerin, and it is well known that these preparations enter frequently into mouth washes containing borax.—*F. W. Haussmann, in American Journal of Pharmacy.*

The Liquefaction of Hydrogen.

Science has at last triumphed over matter. Hydrogen, which has previously resisted all attempts to change its physical characteristics, now succumbs to the will of the noted scientist, Professor Olszewski, of Cracow. As early as 1883, Professor Olszewski began the experiments in the liquefaction and solidification of gases, which has resulted in the conversion of the last of the constituents of the atmosphere into liquid form. Oxygen, nitrogen, and many other gases, when submitted to low temperatures in tubes by means of liquid ethylene, boiling in vacuo, at a temperature of 218 degrees below zero Fahrenheit, were severally liquefied, but hydrogen refused to become liquid even when submitted to a pressure of 180 atmospheres, and cooled down to 364 degrees below zero, by means of liquid ethylene and liquid air boiling in vacuo. What the critical temperature of the gas was could only be conjectured although recognized to be below 364 degrees below zero. In his subsequent experiments, Professor Olszewski still further lowered the temperature of hydrogen, but it was not until a few days ago that this lightest of all gases passed from the gaseous to the liquid state at the remarkably low temperature of 404 degrees below zero, Fahrenheit.

The suit against the Ash Soda Fountain Company, for infringement on the drawer syrup can patents, has ended, and Judge Crosscup, of the United States Circuit Court, has handed down his decree, in which a perpetual injunction is issued restraining and enjoining the defendant from directly or indirectly manufacturing, using, or selling the inventions or improvements claimed in said patents.

Glycerine is said to have a decided power in preventing fermentation in the stomach.

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The Druggist can safely recommend them for their value to the sick.

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The teaching embraces everything necessary for an Optician to know to intelligently and satisfactorily detect errors of vision and properly fit spectacles. The course is so arranged and conducted that a beginner is piloted along step by step, covering the whole ground in such a manner that with regular attendance and moderate reading the student will almost certainly secure the necessary information to successfully pass the examinations held at the end of the course, and thus become possessor of a Diploma of much value to an Optician. After an experience of between two and three years in the schools of ophthalmology and eye hospitals of both England and America, I make no apology for saying this is the most efficient course in Canada. To those passing the examination two subsequent lectures are given, one on **RETINOSCOPY,** or the Shadow Test, a method withal easier to learn and more accurate in results than those usually employed by Opticians. The second one on the **USES OF THE OPHTHALMOSCOPE,** a moderate acquaintance with which enables one to determine where the services of the Oculist should supplant those of the Optician.

The fee for this course is $50 in advance.

For further information apply as above.

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Non-Poisonous and strongly Antiseptic.

These Perles closely resemble the sublimates and carbolic acid in their antiseptic action. A preventive of diphtheric infection.

For the rational cleansing and disinfection of the mouth, teeth, pharynx, and especially of the tonsils, and for immediately removing disagreeable odors emanating from the mouth and nose.

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A few of the "Perles" placed in the mouth dissolve into a strongly antiseptic fluid of agreeable taste, cleanse the mouth and mucous membrane of the pharynx, and immediately remove the fungi, germs, and putrid substance accumulating about the tonsils, thereby preventing any further injury to the teeth.

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Take 2—4 Perles, let them dissolve slowly in the mouth, and then swallow. Being packed in small and handy tins, Radlauer's Antiseptic Perles can always be carried in the pocket.

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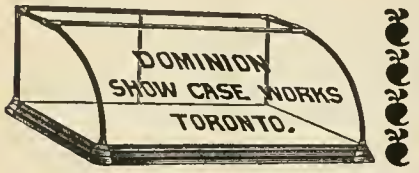

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ANTINERVIN replaces and surpasses Antipyrin, has no hurtful second ary effects, and is cheaper. Taken in doses of 8 grains four times a day, it is an excellent remedy for Feverish, Catarrhal, and Rheumatic Pains.

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Physicians' Supply Houses.

The remarks on substitution which have been presented recently in these pages, and another instalment of which is given in this issue, bring very forcibly to attention the fact that the present condition of the retail drug trade calls for the most careful investigation of its causes, with the view to such reformatory measures as shall bring it to a state where it shall be more satisfactory in both a financial and professional sense. It cannot be denied that the drug trade is in a precarious condition, suffering from evils which threaten its very existence as a separate calling. Acrimonious discussions between doctors and druggists, the diversion of trade to the departmental stores, the charges of illegitimate substitution, and the general accusations in the newspapers of unprofessional and unbusiness-like practices are destined to destroy the occupation of the pharmacist sooner or later, if a remedy be not found and promptly applied.

This condition of affairs cannot be attributed to any one cause, but is the effect of many influences which have been to greater or less degree operative for a number of years. It may, however, be asserted that one of the most powerful of these influences has been the physicians' supply houses, and the drug trade have not recognized soon enough the great influence for evil which these houses exert, and now it is necessary to employ drastic measures to counteract this influence, which threatens the very existence of retail druggists. The patent medicine evil is a minor one in comparison, and the substitution claim of manufacturers is of still less importance.

All will admit the injury done the retail drug trade by these supply houses, but all are not agreed upon the causes for the existence of these concerns. We believe, however, that the druggist himself is largely responsible for the success of this new competitor. The local druggist is the natural purveyor of medicines to and for the physicians in his locality, but he has frequently been slow to recognize the opportunities at his command for serving the physician, for holding his patronage and good will, and for extending his own business. The time has now come for every druggist to bestir himself and to ask, What shall I do, and how shall I meet this competition? Shall I permit these outside concerns to supply the medicines and instruments to the physicians in my territory merely because I am so poor a business man that I cannot control this trade, or shall I do my part as an active business man, and try to regain and hold this trade, which is rightly mine?

Instead of getting out of his store, going around and calling upon the physicians, the same as representatives of the supply houses do, the druggist in many cases has been too content to sit in his store and growl, because the physicians do business with these energetic salesmen. We do not believe that doctors, as a rule, have had any just cause for complaining of the prices charged them by druggists, and we sympathize with the druggist, who has often been imposed upon by the doctor, who helped himself to cigars and knickknacks about the store, as if the goods were his. But these latter are comparatively trivial matters which the druggist must expect to put up with if he wants the good will, patronage, and influence of the doctors. We are convinced that the average doctor prefers not to buy his goods in such large quantities as he is compelled to from out-of-town dealers. Instead of buying one bill of fifty dollars worth of drugs, he would rather get these as he wants them from the local druggist; but so long as the druggist sits with his arms folded and makes no earnest attempt to secure this trade, he must expect the business will switch off into other channels.

If the druggist will take it upon himself to keep in touch with his physicians, cater to their wants, and call their attention to the injustice of their buying their goods abroad, he will find every sensible doctor ready to admit the justice of his claims. The doctor realizes that the drug store is a necessity in every locality, and he is broad-minded enough to recognize that the more trade a druggist enjoys, the better variety of goods he can keep, the fresher will be his supplies, and the cheaper he can afford to sell them. Physicians are entitled to buy their medicines at physicians' prices, and while some manufacturers will sell as cheaply to a physician as they will to a druggist, the larger and more reputable makers allow the druggist an extra discount, and we have a positive assurance that it is the preference of the better class of manufacturers not to sell direct to physicians. The curse of the business is these little manufacturing houses who make a few pharmaceutical products, but buy more, issue a price list, and send out agents to charm the doctors with a discount song about 25 per cent. This is the worst competition the druggist must meet, and, if he isn't business man enough to meet it, then he must expect to lose the trade. When you find that a manufacturer is selling as cheaply to physicians as he is to you, then you should most emphatically protest, and, if it is not stopped, refuse to handle his goods, and send your orders to the manufacturer who will protect you. There is plenty of competition among the manufacturers, and no druggist need feel compelled to handle any line of goods which he cannot sell to his physicians at a reasonable profit. These small manufacturers of medicines who work up their business by selling direct to physicians are on a par with the manufacturer of soap who peddles his product from house to house instead of selling it through the retail grocers. The physicians' supply house is an outgrowth of an example set by a sharp Yankee peddler, who worked up a large business in his own county and state by selling surgical instruments. He soon found that the word "discount" was a charm to the average doctor, and he reasoned that if he could sell instruments, why couldn't he sell medicines, and soon he extended his line. This example has been followed until these concerns have sprung up like mushrooms in all large trade centres. Their tendency is to destroy rather than to support established trade channels, but nevertheless their influence should not be underestimated by the druggists, and if the latter wish to control this trade, which justly belongs to them, they must make a desperate effort or it will soon be beyond their reach.

Among many of the larger and more reputable manufacturers there is a strong feeling against these physicians' supply houses. Some of them positively refuse to sell goods at better than retail druggists' prices, but the volume of business which some of these houses do, and, in consequence, the large orders they are able to place, have forced the manufacturers in many cases to recognize them as jobbers. The legitimate wholesale druggists are unanimously opposed to these supply houses. These jobbers do their business through the retail druggist, and dare not openly sell to physicians. In consequence, the supply house takes a large volume of business away from the jobbing drug trade. If the retail druggists would only arouse themselves and assert their position, they would find the jobbers ready to work with them, and the combination ought to seriously impede the progress of this outside influence. But so long as the physician believes that he can buy his goods cheaper of the physicians' supply house, just so long will it be impossible to break that connection. The local druggist must give the physician to understand distinctly that he can and will supply his wants in a satisfactory manner, and at as low a price as the doctor can buy from the outsider.—*Pharmaceutical Era.*

An Important Decision.

The following, taken from the *Detroit Free Press* of April 2nd, is of considerable interest to the drug trade, involving, as it does, the rights of the manufacturer to an exclusive trade mark:

Judge Swan yesterday dismissed the bill of the California Fig Syrup Co. against Frederick Stearns & Co., by which it was sought to restrain the defendant from the use of the words "fig syrup" on one of its preparations. The complainant is engaged in the manufacture and sale of a preparation which it denominates "Syrup of Figs, California Liquid Fruit Remedy, Gentle and Effective." The words "Syrup of Figs" are blown in the bottle, inscribed on the labels and on the pasteboard wrapper. The company is organized under the laws of Nevada, and has its principal offices in New York, Louisville, San Francisco, and Reno.

The bill states that the complainant has for many years been engaged in the manufacture of the liquid laxative medical preparation designated as "Syrup of Figs," and that it was the first to compound the same. It is alleged that the words "Syrup of Figs" have come to be known as a trade mark of complainant's preparation, and that, by reason of a large investment in advertising this product, the complainant has the exclusive right to the name "Syrup of Figs" in connection with the liquid laxative preparation which, it is alleged in the bill, is called by the public, indifferently, "Syrup of Figs" and "Fig Syrup." The charge against the defendants is that they are selling their own laxative preparation, prominently marked "Fig Syrup," by taking advantage of the reputation of the complainant's article.

The answer of the defendants is that they were led to believe, from the name of complainant's preparation, that it is a syrup of the fig, and contend that the complainant was not the first to manufacture a syrup of figs or to call a syrup by that name, or to discover or name the fig. It is further denied that there can be any exclusive right to the name "Syrup of Figs," which, if the article is a syrup made from figs, is a descriptive name, and, if not so made, is a deceptive name. The answer declares that the defendants put on the market a laxative fig syrup, actually made from figs, and, therefore, properly named "Fig Syrup," and that their packages are wholly unlike those of the complainant.

The testimony in the case showed that the complainant considered the use of fig juice in the compound as superfluous because of no laxative quality; that its preparation contained a very small percentage of fig syrup, and that its principal base was senna. It was shown that the defendants' fig syrup contains 9 20ths of syrup of figs, 10-20ths fluid extract of senna, and that the other 1-20th is made up Rochelle salts, aromatics, and water.

In his exhaustive opinion, Judge Swan says there are but two questions to be answered, which briefly are:

(1) Are the words "Syrup of Figs" or "Fig Syrup" a descriptive name? and

(2) Are they, under the proofs, deceptive?

In the answer to the first, he says it is well settled that words "which are merely descriptive of the character, qualities, or composition of an article" cannot be monopolized as a trade mark, citing a number of decisions, and then continues:

"In Canal *v.* Clark the court lay down two negative essentials of a valid trade mark, and it is then stated: 'No one can claim protection for the exclusive use of a trade mark or trade name which would practically give him a monopoly in the sale of any goods other than those produced or made by himself. If he could, the public would be injured rather than protected, for competition would be destroyed.'"

After giving Webster's and Standard dictionaries' definition of syrup, the opinion shows that the word "syrup" is necessarily qualified by that of the ingredient which is predominant in the preparation. More authorities are quoted to show that the names "fig syrup" and "syrup of figs" are not designed to indicate *per se* the owner or producer of the preparation and distinguish it from like articles made by others, but to indicate quality and composition. By their failure to distinguish them from like articles made by others, they cannot be sustained as valid trade names.

Replying to the second question, the court says that if the equities of the parties are dependent upon the quantity of fig juice which enters into their respective preparations, they largely preponderate in favor of the defendants, as shown by the testimony quoted. "It is a condition, however," continues the opinion, "of equitable relief to one who apples for the protection of his trade mark that the complainant should come into court with clean hands."

"There can be no doubt," says the court, "either that the complainant's preparation is not, in fact, compounded of the juice of the fig, but its principle is senna, or that its name was adopted and is used for the purpose of trading upon the popular fallacy that the juice of the fig in medicinal doses is an effectual remedy for constipation, or that the ordinary purchaser buys the compound as and for the fruit remedy which it is advertised and asserted to be. The law applicable to this state of facts is as clear as their purpose and effect. It will not lend its aid to foster the delusion of the public, or countenance the deceit."

Cinchona Gathering in Peru.

The mountains of Peru form the natural home of the cinchona tree, which is easily distinguishable from surrounding foliage by its beautiful leaves and magnificent proportions. The trees themselves frequently attain a height of eighty feet, are straight as a lance, and covered with foliage. The leaves are large and of a deep glossy green, relieved by delicate pink lines. The life of a bark-hunter is one of constant toil and incessant hardship, and his main reliance on his long and solitary journeys in search of the bark is the coca leaf, which he masticates for the strengthening and stimulating qualities it possesses. Since the days of the Incas this coca has been in common use locally, and it is said that among the mountains of Bolivia and Peru Indians using coca freely when driving pack mules over the roughest roads along the Sierras outstrip well-mounted horsemen. From thirty to fifty grammes are consumed daily, serving both as food and stimulant. The cascarillero, constantly using coca, finally loses the senses of taste and smell. There are many varieties of cinchona, which the hunter learns to distinguish through the texture and appearance of the bark. They are red, white, orange, yellow, blue, and gray; the yellow being the finest. Although the pay of the quinine-hunter is very small, it suffices to meet the simple requirements of himself and family, and as a class they are happy and contented with their lot. It is a vocation that is handed down from father to son, but despite long years of experience, coupled with an intimate knowledge of the intricate trails leading to the cinchona tree, the Indian hunters frequently lose their lives in the jungles of the wilderness. Occasionally, a number of hunters start together as a greater protection against disaster. Upon reaching a desirable spot where the signs of paying trees are considered good, preparations for camping are at once made, and from the tops of the loftiest trees the hunters scan the forest, quickly recognizing the cinchonas. The task of gathering cinchona bark occupies all the working hours between sunrise and sunset. Armed with knives and keen-edged hatchets, the tree is quickly felled and the trunk is stripped and cleared from all foreign growth. This is a task of considerable magnitude, frequently requiring days of constant labor, the sharp edges of lance-like leaves, mingled with thorns and briars, lacerating and wounding the hunter's flesh. The bark, when removed, is cut into small curling slips and piled up in a convenient spot, where they are subjected to a drying process. The thin portions of the bark curl up, drying rapidly, while the larger and thicker strips retain their shape, and are easily packed for transportation. When all is pronounced ready by the torlego, or head hunter of the party, the bark is neatly lashed together with plaited grass and bound round with broad tough leaves, as a protection to the cured bark. The Indians and peons then shoulder their burdens, often weighing as much as one hundred and fifty or two hundred pounds — these are kept in position by plaits of grass passing round the foreheads of the bearers, and are thus carried to market.— *Journ. Soc. Arts, through Pharmaceutical Journal and Transactions.*

Compound Syrup of Hypophosphites.

The following formula is said by a writer in the *Western Druggist* to yield a non-precipitating syrup of fine appearance: Calcium hypophoshhite, 256 grs.; sodium hypophosphite, 128 grs.; potassium hypophosphite, 128 grs.; manganese hypophosphite, 16 grs.; tinct. citro-chloride of iron N.F., 1 oz.; tinct. nux vomica, 160 m.; quinine hydrochlorate, 8 grs.; sugar, 12 oz.; water to make 16 fl. oz. Dissolve the hypophosphites by trituration in 6 oz. previously boiled water, dissolve the quinine salts in ½ oz. of warm water, mix the two solutions and pour over the sugar. Shake well, add the tinctures and enough water to make 16 fl. oz. Again shake, until the sugar is dissolved, stand for 24 hours and filter.

THIS PACKAGE CONTAINS FOUR FELTS.

DAVIS'

FLY POISON FELTS

NEVER FAILS TO DESTROY FLIES AND INSECTS.

SUPERSEDES Fly Paper and all other POISONS, Being Convenient and EFFECTIVE

DIRECTIONS.

Place one of the Felts upon a dish or plate; keep wet with water. Use only enough water to soak the Felt. Flies will drink the poisoned water off the Felt and die immediately.

Placer un de ces Feutres au-dessus d'un plat ou assiette; tenez-les humides avec de l'eau. Usez seulement assez d'eau pour temper le Feutre. Les mouches boiront l'eau empoisonnee, sortiront du Feutre et morront immediatement.

CAUTION.—Should the liquid be swallowed by accident at once administer in large doses, Lime Water, Flaxseed Tea, or Iron Rust, followed by an emetic and drinks of Milk or Flour and Water.

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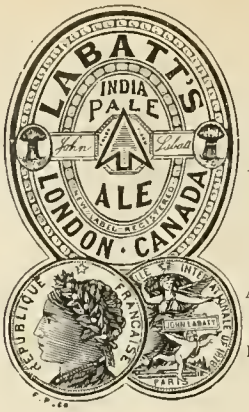

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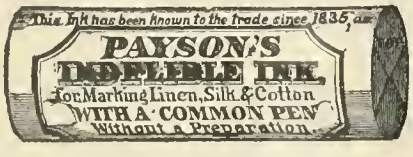
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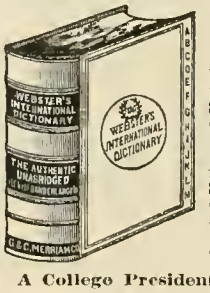

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Formulary.

LAVENDER SACHET POWDER.

℞ Lavender flowers, ground..... lb j.
Powdered gum benzoin..... lb ¼.
Otto of lavender..... ..... ʒ ¼.

KALODANT.

Dahman's analysis of this popular Parisian dentifrice is considered authoritative, and is as follows :

℞ Precipitated carbonate of lime . grm. 250.
Calcined magnesia..... " 80.
Glycerine. .... " 500.
Medicinal soap..... " 150.
Essence of canella..... " ij.
Essence of peppermint..... " ij.

It is colored with carmine in a solution of carbonate of potash.—*Universal Magazine.*

CAMPHOR ICE WITH GLYCERINE.

Spermaceti..... ʒiv.
Ceræ albæ.... ..... ʒiv.
Camphor pulv.... ..... ʒiv.
Sodii boratis.... ..... ʒij.
Stearin ..... ʒxvj.
Glycerin..... ʒxxxiij.
Ol. lavandulæ..... ..... mxxv.
" limonis..... mxxv.
" coryophylli..... mxxv.
" bergamot.... ..... mxxv.

Melt the wax, spermaceti, and stearin, then dissolve the camphor in the warm mixture ; mix the borax with the glycerine, and stir into the hot mixture gradually, constantly agitating. Pour into suitable moulds.—*American Druggist.*

SMELLING SALTS.

The *Seifensieder Zeitung* gives the following directions for preparing a superior article of smelling salt :

Ammonium carbonate.....120 gm.
Spirit of ammonia..... 60 gm.
Bergamot oil..... 12 drops.
Lavender oil..... 8 drops.
Oil of cloves..... 4 drops.
Neroli oil..... 4 drops.
Cinnamon oil..... 4 drops.

The ammonium carbonate, which should be quite fresh, and in lumps about the size of a hazel nut, is put into a wide-mouthed jar. The oils and ammonia are then mixed and poured into the jar, and the stopper at once applied. Set aside for two days, at the end of which time the ingredients will be found to have united in a solid mass.

If it is desired to prevent this occurrence and have the substance in the shape of a dry salt, instead of letting the container remain quiet, shake it frequently and violently every day for a week. The salt thus obtained can be easily removed from the container, coarsely pulverized, and put into little smelling bottles, should it be desirable so to do —*National Druggist.*

SOLUTION OF PHOSPHOGLYCERATE.

Calcium phosphoglycerate.... .....10 grammes
Distilled water sufficient to make..... 1,000 cc.
Dissolve and filter.

The solution is not entirely clear, but may be made so by the addition of a trace of citric acid.

SYRUP OF CALCIUM PHOSPHOGLYCERATE.

Calcium phosphoglycerate.. ... . 10 grammes
Citric acid..... ... . 1 gramme
Granulated sugar... .....610 grammes
Water..... ....340 grammes

The salt and acid are dissolved in the water, the sugar is added and dissolved without heat ; the product weighs about 950 grammes, which may be brought to the weight of 1,000 grammes by the addition of syrup of orange.

LAUNDRY POWDER.

The *Bayer.-Ind. u. Gew. Bl.* recommends the following :

Borax.....45 parts
Sodium hyposulphite.....5 parts
Sodium hydroxide.....50 parts
Mix and put up in pound packages.

SYRUP OF IODIDE OF IRON AND ORANGE.

The following formula for syrup of ferrous iodide is suggested by O. Girard (*Bull. com.*): Iodine, 4.10 gm. ; iron filings, 2 gm. ; distilled water, 10 gm. The solution having been prepared as directed in the Codex—by placing the iron filings and water in a flask, and adding the iodine in small quantities at a time, and agitating after each addition until the solution finally acquires a green color— it is then mixed with one kilo. of the following : Citric acid, 5 gm. ; distilled water, 10 gm. ; tincture of orange peel, 10 gm. ; simple syrup, q.s., to make 1 kilo. Twenty grammes of the finished syrup will contain 0.10 cgm. of ferrous iodide.

COLORLESS SOLUTION OF SHELLAC—AN ELEGANT LABEL VARNISH.

Dissolve 150 gm. of shellac in a litre of alcohol by the aid of gentle heat, in a water-bath. Stir in about 150 gm. freshly burned charcoal and bring the mixture to a boil, maintaining it at this temperature about ten minutes. Filter a small portion, and, if not absolutely colorless, add a little more charcoal and again boil. After again testing, if found to be quite free from color, first strain through silk (an old pocket handkerchief will answer), and subsequently filter through paper. The resultant solution, with the addition of a little castor oil, to ensure elasticity, makes the best varnish for prints, paintings, etc., that we have ever tried — *National Druggist.*

TO WHITEN THE NAILS.

℞ Dil. sulphuric acid, ʒ ij.
Tinct. myrrh, ʒ j.
Spring aq. ʒ iv.

Mix well. Wash the nails with soap and water, then dip the fingers into the wash.—*Universal Magazine.*

KOLAPEPTON TABLETS.

Ludwig Bernegau, in a series of formulæ for strengthening and refreshing media (*Starkungs und Erfrischungsmittel*), suggests the following :

Pepton..... ... 15 parts
Milk sugar..... ... . 40 parts
Cacao-mass..... .... 30 parts
Kola, in powder..... .....25 parts
Sugar, powdered white.....40 parts
Aromatics..... .....10 parts

Mix and make into tablets.—*National Druggist.*

TINCTURE OF LITMUS.

W. Schaefer, of Alzey, has an article of this subject in the *Apotheker Zeitung*, from which we translate as follows :

Pack the coarsely cut litmus in a percolator and exhaust with cold distilled water ; evaporate the extract down according to the weight of the litmus used, and to the residue add thrice its weight of alcohol of 90°. Acidify strongly with hydrochloric acid and set aside for two days. Nitrolitmin (azolitmin) falls in the shape of a brown flocky precipitate, while the muddy violet coloring matter of the litmus remains in solution in the alcoholic fluid. Collect the precipitate on a smooth filter, wash in acidified hot water two or three times, or until the waste water, on treatment with ammonia, strikes a pure blue, without a trace of violet. Let the azolitmin remain upon the filter, and dissolve it with distilled water carrying a small percentage of ammonia. Add distilled water to the filtrate sufficient to make a total solution equal to 3½ times the weight of litmus originally used. Neutralize very exactly, and add, to insure its preservation, 10 per cent. of alcohol of 90°. Such a tincture leaves absolutely nothing to be desired, either by apothecary or chemist.—*National Druggist.*

Antidiphtheritic Pastilles.

Dr. A. Rose (*Med. Record, Am. Medico-Surg. Bull.*). As our control of the course of diphtheria is still very limited, we should welcome every suggestion of means of guarding against diphtheritic infection. We all know that a healthy pharynx is of importance, and that this organ, like the mouth, should be kept in an aseptic condition. For this purpose the author suggests either the pastilles used by himself, or those recommended by Dr. J. Bergmann (under the name of "Diphthericide"), and urges that they be "given to the little ones going to school in place of candy or chewing gum." Formulæ for the two kinds of pastilles are as follows ;

Rose : Resin Guaiac, 0.75 gm.; Saccharin, 0.01 gm.; Sugar and Extr. Licorice, 0.75 gm.

Bergmann: Thymol, 0.002gm.; Sodium Benzoate, 0.020 gm.; Saccharin, 0.015 gm ; Mucilage, q.s.

Hoffman's anodyne, Dr. Hare says, is the best drug known for the relief of depression from smoking.

Photographic Notes

THE PROPHECY OF PHOTOGRAPHY.—A correspondent of the *American Journal of Photography* has unearthed the following anticipatory view of photography from a fable published in Amsterdam, in 1690: "There was no painter in all the country, but when they wished the portrait of a friend or a picture representing some lovely landscape, or other object, they put water into large basins of gold and silver, and made this water face the object they wished to paint. Very soon this water would congeal, and become as the face of a mirror, where the image dwelt ineffaceably. This could be carried wherever one pleased, and gave as faithful a picture as any mirror."

DEVELOPERS FOR BROMIDE PAPERS.—Hesekiel & Co. recommend the following developer for their "grain" bromide paper:

Solution I. Potassium oxalate, 3 oz; water, 10 oz.
" II. Iron sulphate, 3 oz.; water, 10 oz.
" III. Potassium bromide, 1 oz.; water, 10 oz.

For use mix six parts (? oz.) of I. with one part of II., add a few drops of III. to obtain extra brilliancy, and then water, 5 oz. After developing, put the prints in a clearing solution (acetic acid, 1 dr.; water, 32 oz.), rinse and fix (hypo., 4 oz., water, 20 oz.). Another good developer is a 1 per cent. solution of rodinal, with a few drops of potassium bromide solution as required. After developing, rinse and fix in hypo. solution as above, treating for ten minutes. — *Pharmaceutical Journal and Transactions.*

PRINTED LANTERN SLIDES.—Prof. W. J. Waggener, of the State University of Colorado, makes a valuable suggestion in regard to the production of lantern slides. He finds that with an ordinary printing press and engraved blocks, all kinds of pictures and diagrams may be printed upon sheets of transparent gelatin in the same way that they are now impressed upon paper. The prints thus made are ready for use as lantern slides without any further preparation, and in the majority of cases these gelatin prints, which can be produced for a few cents, will be found quite as useful as the expensive photographs on glass now in general use.

PHOTOGRAPHING GLASS VESSELS.—For the photographing of engraved glass vessels, the following method is recommended in *Die Photographie.* In order to reduce the vigor of the impression of the back surface, the front side of the glass should be rubbed with powdered talc and lightly dusted with a soft cloth, so as to leave the talc only on the etched or engraved portion. The vessel should then be filled with a very dilute solution of permanganate of potash. After such treatment, a photograph showing a clear impresssion of the etching or engraving may readily be obtained.—*Photography.*

INTENSIFYING FORMULÆ — MERCURY AND AMMONIA.

Mercuric chloride, pulv....	½ ounce.
Hydrochloric acid (strong) .	60 minims.
Water (hot).....	20 ounces.

Use when cold. This solution keeps indefinitely.

The negative must be perfectly fixed and washed, and allowed to remain in the above solution until bleached. Wash for ten minutes in running water, and then blacken by immersion for two minutes in

Ammonia.....	4 drams.
Water.....	10 ounces.

Afterwards wash for ten minutes in running water.

Brown stain indicates imperfect washing. Semi-opaque patches, which show white or grayish white on examining glass side of negative by reflected light, are due to imperfect fixation.

If the opacity is found to be too great after the intensification, the negative may be reduced by an immersion in a solution of sodium thiosulphite (hypo.), 1 ounce to water 20 ounces. The reduction takes place quickly; when sufficiently done, wash well in running water. Local reduction may be effected by applying the hypo. solution by cotton-wool to the too opaque portion.—*Photography.*

MOUNTING GELATIN PRINTS. — It is pointed out that paraffined paper is good for rubbing down the prints when mounting, or gutta percha tissue may be used for the same purpose. The film wants hardening; if this is secured by the use of alum the mounting may be more easily conducted. Some persons advise that the mountant should be spread on the card, and not on the print. When washed place the print face downwards on a sheet of glass, one on top of the other; then drain. The top print is then brushed over the back with strong starch paste, not quite cold. The print is then lifted and placed loosely in its proper place on the mount. Another print is similarly treated, and when that is in position the first print is finally smoothed down on the mount with a fine soft sponge, well damped with water. This washes the superfluous paste off the edges at the same time. The sponge is then squeezed dry, and the print is wiped dry with it. Blotting paper should never be used. Prints so mounted look clean, and never come off if the paste is of the right consistency.—*Photography.*

REDUCTION OF NEGATIVE.—The negative is plunged into water for thirty minutes, and then carried to a bath composed of

Water..	100 c. c.
Sulphuric acid.....	4 c. c.
Solution of bichromate of potash, 3pc.	6 c. c.

This solution being very energetic, it is important to watch carefully its action on the negatives; the reduction takes plate in uniform manner, and the plate is not spotted, as sometimes happens with the other known reducers. The negatives, after this treatment, may be easily strengthened.—M. Goislin, in *Archiv.*

The Amateur Photographer.

The *Spatula*, in speaking of the handling of photographic supplies, says: How many there are belonging to this restless army of amateur photographers, it is impossible to discover; but it is known that more than half a million cameras have been sold in the United States alone during the last few years, and the demand is anticipated to be, during the coming season, greater than ever.

The money spent by this host during a year must amount to many millions of dollars, for its members, as a rule, belong to that much-to-be-envied class of families the heads of which are at present reluctantly figuring up their income tax. The druggist, as we have before suggested, is the proper medium through which a large proportion of this vast amount of money should reach the manufacturer. His knowledge of chemistry, and his knowledge of photography, the latter of which he should possess if he doesn't, make him especially well adapted for dealing in the supplies of which the amateur is constantly in want. Why should a person have to go to a hardware, stationery, or grocery store for "soda acid sulphite," if he happens to want it for photographic purposes? Suppose he should want to know something about the chemical, what could the grocery clerk tell him?

Not only are the chemicals proper stock for a druggist, but so also are the films, plates, papers, glasses, and all the other paraphernalia used by the photographer. In case he chose to do so, it might, perhaps, in some cases be well to draw the line at cameras, tripods, and expensive lenses, and yet, even in these, if sold by order or on commission, there will be found in most cases a profit large enough to more than pay for the extra trouble.

The department stores and the grocery emporiums have stolen so much of the proprietary trade that by divine right belongs to the pharmacist, it is only fair and good business policy for him to keep on the lookout for something to take its place. At present there is nothing else on the horizon which so legitimately belongs to him as does the line of goods we have mentioned. They are in great part chemicals, are neat and clean to handle, are in good demand, and offer a good profit.

Where there is possibly sufficient trade to warrant it, it would be a good idea to fit up a part of the store especially for the display and sale of these goods. The method of doing this would depend upon the judgment and taste of the druggist. We would, however, advise that he be as generous as possible, and, if practicable, have a small room which might be used as a sort of headquarters for the amateurs, and in which they could do some of their work. A small space could easily be partitioned off and made into a dark room. This would win the eternal gratitude of all the amateurs for miles around.

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Dr. Wilson's Cramp and Pain Reliever
Dr. Wilson's Dead Shot Worm Sticks
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Show-Bottle Colors.

The following formulæ, many of which are new, are reprinted from the *Western Druggist:*

Crimson.—Iodine, 120 gr.; potassium iodide, 120 gr.; hydrochloric acid, 2 fl. oz.; water, 1 gal. To the iodine and iodide of potassium contained in a mortar add 8 ozs. of water and make a solution. Acidulate the remainder of the water with the hydrochloric acid and mix both solutions. In the event of the bottles being exposed to extreme cold it is advisable to add 10 per cent. of alcohol, leaving out an equivalent amount of water.

Scarlet.—Ammonia water, 16 fl. oz.; acetic acid, 32 fl. oz.; alcohol, 16 fl. oz.; tincture of ferric chloride, 4 fl. oz.; distilled water, enough to make 1 gallon. Add the acetic acid to the ammonia water, shake thoroughly, and add the alcohol. Mix the tincture of chloride of iron with the water, and to the solution so formed add the first solution of ammonia, water, alcohol, and acetic acid.

Crimson, No. 2.—Alkanet root, 16 av. oz.; oil of turpentine, 1 gal.

Dark Red.—Potassium iodide, 640 gr.; alum, 64 gr.; water, 1 gal.

Red.—Cobalt carbonate, 30 gr.; hydrochloric acid and ammonium carbonate, of each sufficient; water, 1 gal. Dissolve the cobalt in hydrochloric acid, dilute with the water, then add of concentrated solution of ammonium carbonate enough to produce the proper tint.

Pink.—Cobalt oxide, 2 av. oz.; nitric acid, c. p., 1 av. oz.; hydrochloric acid, c. p., 1 av. oz. Dissolve and add: Stronger water of ammonia, 6 fl. oz.; water, 3 gals.; sulphuric acid, c. p., 1 av. oz. Set aside for one month. Properly prepared, this is claimed to furnish a splendid pink liquid.

Pink, No. 2.—Cobalt oxide, 60 gr.; nitric acid, 6 fl. oz.; water, 1 gal.

Garnet. — Potassium bichromate, 10 dr.; sulphuric acid, 10 fl. dr.; water, 20 fl. oz. Dissolve the bichromate in the water, and then add slowly and with constant stirring the whole of the sulphuric acid. Then add: Alcohol, ½ fl. oz.; water, enough to make one 1 gallon. By lamplight this fluid shines garnet, while in daylight it appears a deep mauve green.

Violet.—Cudbear, 60 gr. to 2 av. oz.; ammonia water, 4 fl. oz. to 8 fl. oz.; water, 1 gal. Macerate for 24 hours.

Purple.—Verdigris, 640 gr.; water of ammonia, av. oz.; water, 1 gal.

Brilliant Purple.—Copper sulphate, 7 parts; water, 52 parts; French gelatin, 4 parts; boiling water, 52 parts; solution of potassa, 985 parts. (Taking grains this makes approximately 2 fluid ounces.) Dissolve the copper sulphate in the water and the gelatin in the hot water, mix the two solutions, and add the solution of potassa; shake the mixture occasionally during 10 hours, then decant and dilute with enough water to make the desired tint.

Orange.—Potassium bichromate, 4 av. oz.; nitric acid, 1 av. oz.; water, 1 gal. (Or dissolve 64 grains of chromic acid in 1 gallon of water.)

Amber.—Dragon's blood. 1 part; sulphuric acid, 4 parts; water, 3,629 parts. Macerate the powdered dragon's blood in the acid for 20 to 30 minutes, then add the water.

Straw or Lemon Yellow.—Potassium bichromate, 6 av. oz.; sodium bicarbonate, 6 dr.; water, 1 gal.

Pea Green.—Nickel, 120 gr.; nitric acid, 1 fl. oz; potassium bichromate, 120 gr.; water, 1 gal.

Olive Green.—Ferric oxide, 1 av. oz.; hydrochloric acid, 4 fl. oz.; copper sulphate, 8 av. oz.

Dark Green.—Copper sulphate, 1 av. oz.; ammonia water, 4 fl. oz.; potassium bichromate, enough to produce the desired tint; water, 1 gal.

Emerald Green.—Nickel, 85 parts; hydrochloric acid, 132 parts; nitrous acid, 55 parts; water, enough to make 4,000 parts (all by weight). Dissolve the nickel in the hydrochloric acid, then add the water, and finally the nitrous acid.

Grass Green.—Copper sulphate, 35 parts; ammonium chloride, 35 parts; water, 930 parts. Add the salammoniac to the copper solution.

Sea Green.—Copper acetate, 4 parts; acetic acid, 36 parts; water, 960 parts. Triturate the copper acetate with the acetic acid, gradually adding the water.

Pale Blue.—Copper sulphate, 16 av. oz.; sulphuric acid, 2 av. oz.; water, 1 gal. Dissolve the copper sulphate in the water containing the acid.

Blue.—Copper sulphate, 28 parts; alum, 28 parts; sulphuric acid, 26 parts; water, 946 parts. Gradually add the acid to the water containing the salts.

Purple Blue.—Copper sulphate, 1 av. oz.; ammonia water, 4 fl. oz.; water, 3 gals.

Any of the water-soluble aniline dyes may be employed, but they fade rapidly in the light.

To prevent freezing about 20 per cent. of glycerin or alcohol must be added to the solutions, excepting those containing free chromic acid.

The Conceited Student.

The conceited student is a misguided youth with a head several sizes too large for him. He comes up to his pharmacy college flushed and important from his school successes, and swollen with the flattery of his sisters and provincial aunts. Provincial aunts exude adulation in direct ratio to their absorption of afternoon tea. They tell him that he is destined to be a great man, and he believes them with all the force of his inexperience. He proceeds to show his superiority by saying something disrespectful about the atomic theory. His emphatic statement that it is all rot stamps him among his fellow-students as a daring and original genius. Their silence encourages him to take a rise out of the periodic law. They do not comment on this either. His easy familiarity with every department of knowledge seems to form a mystic aureole around him, through which the ignorant cannot, and the wise do not trouble to, penetrate. He is cocksure of everything. He never condescends to learn anything; as he can always teach, this seems unnecessary to him.

He is most at home in the rostrum of the lecturer, whence he distributes nuggets of information with the condescension of those who know little that is not superficial. His opinion is deemed so valuable that it is often sought by those who know more about their subject than he. His belief in his own omniscience is so sincere that his sincerity passes for omniscience. Nothing is too insignificant a target for his learning to make flying shots at. If he misses his mark, the bombast of his manner forms a smoke-cloud that screens his failure from inquiring eyes. He speaks much, and is not prevented from astonishing the world by the restraining knowledge of his own incompetence. When demonstrators detect the base ring in his coinage, he argues familiarly with them, and puts them right when they have not strayed from the straight path. When they grow sick of his impertinences and leave him to himself, he forthwith informs his neighbors that he has taught those conceited gentlemen to respect his opinion. They, the demonstrators, are mere figureheads, who can only hold their own by not contesting points with men, like himself, who are up to most moves on the chemical board. He then lounges across the laboratory to tell the quiet young man who is going to sweep the medals of his session how to make sulphuretted hydrogen in a test tube by adding diluted sulphuric to crystals of ferrous sulphate. When, partly by overlooking the notes of his neighbor in the chemistry class, he manages to write the equation of the purification of chloride of zinc from impurities of iron and lead, he rejoices like a hen that has laid her first egg, and is a most distressing nuisance while his cackling enthusiasm lasts.

Very, very rarely will he confess that facts have slipped his memory, but he never forgets anything. If, when he cannot call something to mind, you tell him what it is, he remembers it at once. Although he is so very clever, the examiners soon discover his incompetence, and politely remind him that three months' further reading would not be without benefit to him. Then he goes off in a huff to his acquaintances and his provincial aunts, and tells them of the gross ignorance of one of the examiners, and how he was really compelled to set that worthy right. This so annoyed the examiner that that gentleman ploughed him, just out of spite, you know. His provincial aunts believe him, and after he has told the tale a few times he believes it himself, and feels that he has been grievously wronged. Should he manage to qualify later on, he is short-sighted enough to attempt a puny revenge by

refusing to join the corporation that looks after his interests. This need not be a matter for surprise. Even men of his calibre can soar to the dizziest heights of consistency.—*Student' Series in Chemist and Druggist.*

Proposed Regulation of Patents.

A bill has been introduced in the United States House of Representatives in which it is proposed to create a board of chemical and medical experts, who shall have power to fix the standards of all drugs and medicines. It also provides that this board shall have power to grant licenses to manufacture any patent or proprietary medicine, and all such licensees shall pay ninety-six dollars per annum for such license.

Each box, package, bottle, or vial used for putting up a patent medicine will be required to bear a revenue stamp equal to 5 per cent. of the retail price of the article, and failure to attach such stamp is punishable by a fine of $100. All proprietary articles shall be submitted to the Board for Fixing the Standard of Drugs and Medicines, and if pronounced healthful shall be permitted to be sold. No formula of any medicine shall be made public by the board unless it is found by chemical analysis that the article is not made in accordance with the formula submitted, but, if the standard is not as represented, "the formula shall be published and the fraud exposed." Any officer improperly divulging his official knowledge shall be punished by a fine of from $500 to $2,500, and imprisonment of from one to ten years.

It is also provided that no prescription by a physician shall be considered a proprietary drug or medicine unless sold under a proprietary brand; and that no retail or wholesale druggist putting up physicians' prescriptions shall be considered as subject to the license provided for, unless they shall also put up proprietary articles, by which is meant "all articles of drug and medicine manufactured and exposed for sale with the name of any individual firm or corporation attached thereto or printed thereon, or any article of drug, medicine, cosmetic, perfumery, or any article prepared therefrom and sold under a patent or proprietary brand."

The promoter of the bill states that the object of his proposed measure is for revenue purposes, and not for the purpose of aiming at the patent medicine manufacturers.

Determination of the Purity of Liquids.

Having been engaged in purifying a number of pharmaceutical products, R. Pictet has sought for some definite means of ascertaining their purity, and finds that in the case of liquids the direct observation of the temperature of their critical points affords a very sensitive test (*Comp. rend.*, cxx., 43). This temperature varies from ten to sixty times more than that of the boiling point in the case of a given liquid under similar conditions. The method adopted was to take a series of very pure liquids and determine their boiling points, noting the height of the barometer, and then to determine the critical points by means of a sensitive thermometer. A few drops of alcohol, aldehyde, water, etc., were then added to the pure liquids, and the boiling and critical points again observed. A tube of 5 mm. external diameter, 3 mm. internal diameter, and 45 to 50 mm. long, was filled with the liquid under examination. A portion of the contents was then evaporated, and the tube sealed by means of the blow-pipe, so that it was one-third full of liquid, and the remaining space occupied by saturated vapors. The tube was next placed obliquely in a small rack, side by side with a very sensitive thermometer, in the centre of a thin sheet-iron cylinder having two openings fitted with mica. A similar, larger cylinder surrounded this, and was warmed from below by a multiple gas flame, the current of heated air passing through a siries of wire gauze partitions which divided the enveloping space. The whole apparatus was finally enclosed in a third sheet-iron cylinder, covered with asbestos, and arranged so that the tubes could be readily observed through the three pairs of windows. The stem of the thermometer passed through openings in the three cylinders, and it was possible to note distinctly the tenth of a degree. Chloroform, chlorethyl, and pental were the liquids examined. The temperature was first allowed to rise slowly to the critical point, when the meniscus suddenly disappeared, and very characteristic gyratory movements were visible throughout the length of the tube. The temperature was then gradually lowered until the transparent interior of the tube became suddenly opaque, the minute particles of liquid collecting at the bottom, and the meniscus reappearing. On warming again, and after several trials, a temperature was found at which within one tenth of a degree the meniscus was observed to disappear and the mist become visible. This mean temperature is that given as the critical point in the following table:

	Critical point.	Difference.	Difference in b. p.
Chloroform, pure	258°.8		
Chloroform mixed with a few drops of alcohol	255°.0	−3°.8	−0°.1 to 0°.2
Chlorethyl, pure	181° 0		
Chlorethyl mixed with a few drops of alcohol	187°.0	+6°.0	+0°.6
Pental, pure	201°.2		
Pental mixed with a few drops of aldehyde	199°.5	−1°.7	<0°.1

In taking the boiling point it was found necessary always to immerse the thermometer to a uniform depth at the same place, the same vessel being employed and heated by a flame of uniform power. The addition to a liquid of others more volatile and readily soluble lowered the temperature, as when aldehyde was added to pental. On the other hand, the addition to chloroform, boiling at 61°, of the less volatile alcohol equally lowered the temperature of the critical point. Chlorethyl, which boils at +11°, had its critical point raised 6° by the addition of alcohol, which boils at 78°.8. It is difficult, therefore, to deduce a natural law.—*Pharmaceutical Journal and Transactions.*

Alkaloids and Alkaloidal Salts.

We are in receipt of a chart compiled by Albert N. Doershuk, Ph.G., Kansas City, Mo., which is of undoubted value for druggists and drug clerks. It is a compilation of "The Alkaloids, Alkaloidal Salts, and Neutral Principles of the United States Pharmacopœia, 1890." The official Latin and English titles and English synonym are given, together with the origin, physical description, chemical composition, degrees of solubility, doses, etc. Any of our subscribers who desire a copy may obtain one, postpaid, by writing to the *National Druggist*, St. Louis, Mo., who publish it as a supplement.

He who gargles with guaiac will prevent or abort a tonsillitis.

Remember that physiological rest is the first principle in the cure of all diseases.

Our Latest Importations.

ALUM, in bbls.
ALUM POWDERED, in bbls.
FINEST EPSOM SALTS, in bbls.
FINEST SUBLIMED SULPHUR, in bbls.
ROLL SULPHUR, in bbls.
CHLORIDE LIME, in casks.
SALTPETRE CRYSTALS, in kegs.
SALTPETRE POWDERED, in casks.
POWDERED HELLEBORE, in bbls.
GLYCERINE, in tins.
WHITE CASTILE SOAP, bars.
WHITE CASTILE SOAP, cakes.
PARIS GREEN, in casks and drums.
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VIOLET,
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ORANGE,
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MAGNOLIA.

SWEET MIGNONETTE,
LILLIAN RUSSELL,
MARIPOSA LILY,
MAGNOLIA BLOSSOM.

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CANADIAN DRUGGIST PRICES CURRENT

Corrected to April 10th, 1895.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal	$4 05	$4 25
Methyl	1 90	2 00
ALLSPICE, lb	13	15
Powdered, lb	15	17
ALOIN, oz	40	45
ANODYNE, Hoffman's bot., lbs	50	55
ARROWROOT, Bermuda, lb	45	50
St. Vincent, lb	15	18
BALSAM, Fir, lb	40	45
Copaiba, lb	65	75
Peru, lb	3 75	4 00
Tolu, can or less, lb	65	75
BARK, Barberry, lb	22	25
Bayberry, lb	15	18
Buckthorn, lb	15	17
Canella, lb	15	17
Cascara, Sagrada	25	30
Cascarilla, select, lb	18	20
Cassia, in mats, lb	18	20
Cinchona, red, lb	60	65
Powdered, lb	65	70
Yellow, lb	35	40
Pale, lb	40	45
Elm, selected, lb	20	21
Ground, lb	17	20
Powdered, lb	20	28
Hemlock, crushed, lb	18	20
Oak, white, crushed lb	15	17
Orange peel, bitter, lb	15	16
Prickly ash, lb	35	40
Sassafras, lb	15	16
Soap (quillaya), lb	13	15
Wild cherry, lb	13	15
BEANS, Calabar, lb	45	50
Tonka, lb	1 50	2 75
Vanilla, lb	6 00	7 50
BERRIES, Cubeb, sifted, lb	30	35
powdered, lb	35	40
Juniper, lb	7	10
Ground, lb	12	14
Prickly ash, lb	40	45
BUDS, Balm of Gilead, lb	55	60
Cassia, lb	25	30
BUTTER, Cacao, lb	75	80
CAMPHOR, lb	60	68
CANTHARIDES, Russian, lb	1 40	1 50
Powdered, lb	1 50	1 60
CAPSICUM, lb	25	30
Powdered, lb	$ 30	35
CARBON, Bisulphide, lb	17	18
CARMINE, No. 40, oz	40	50
CASTOR, Fibre, lb	20 00	20 00
CHALK, French, powdered, lb	10	12
Precip., see Calcium, lb	10	12
Prepared, lb	5	6
CHARCOAL, Animal, powd., lb	4	5
Willow, powdered, lb	20	25
CLOVE, lb	16	17
Powdered, lb	17	18
COCHINEAL, S.G., lb	40	45
COLLODION, lb	75	80
Cantharidal, lb	2 50	2 75
CONFECTION, Senna, lb	40	45
Creosote, Wood, lb	2 00	2 50
CUTTLEFISH BONE, lb	25	30
DEXTRINE, lb	10	12
DOVER'S POWDER, lb	1 50	1 60
ERGOT, Spanish, lb	75	80
Powdered, lb	90	1 00
Ergotin, Keith's, oz	2 00	2 10
EXTRACT, Logwood, bulk, lb	13	14
Pounds, lb	14	17
FLOWERS, Arnica, lb	15	20
Calendula, lb	55	60
Chamomile, Roman, lb	30	35
German, lb	40	45
Elder, lb	20	22
Lavender, lb	12	15
Rose, red, French, lb	1 60	2 00
Rosemary, lb	25	30
Saffron, American, lb	75	80
Spanish, Val'a, oz	1 00	1 25
GELATINE, Cooper's, lb	75	80
French, white, lb	35	40
GLYCERINE, lb	14	16
GUARANA	3 00	3 25
Powdered, lb	3 25	3 50
GUM ALOES, Cape, lb	18	20
Barbadoes, lb	30	50
Socotrine, lb	65	70
Asafœtida, lb	40	45
Arabic, 1st, lb	65	70
Powdered, lb	75	85
Sifted sorts, lb	40	45
Sorts, lb	25	30
Benzoin, lb	50	1 00
Catechu, Black, lb	9	20
Gamboge, powdered, lb	1 20	1 25
Guaiac, lb	50	1 00
Powdered, lb	70	75
Kino, true, lb	1 25	
Myrrh, lb	$ 45	$ 48
Powdered, lb	55	60
Opium, lb	4 25	4 50
Powdered, lb	6 00	6 50
Scammony, pure Resin, lb	12 50	13 00
Shellac, lb	45	48
Bleached, lb	45	50
Spruce, true, lb	30	35
Tragacanth, flake, 1st, lb	90	1 00
Powdered, lb	1 10	1 15
Sorts, lb	45	75
Thus, lb	8	10
HERB, Althea, lb	27	30
Bitterwort, lb	27	30
Burdock, lb	16	18
Boneset, ozs, lb	15	17
Catnip, ozs, lb	17	20
Chiretta, lb	25	30
Coltsfoot, lb	20	38
Feverfew, ozs, lb	53	55
Grindelia robusta, lb	45	50
Hoarhound, ozs., lb	17	20
Jaborandi, lb	45	50
Lemon Balm, lb	38	40
Liverwort, German, lb	38	40
Lobelia, ozs, lb	15	20
Motherwort, ozs, lb	20	22
Mullein, German, lb	17	20
Pennyroyal, ozs, lb	18	20
Peppermint, ozs., lb	21	25
Rue, ozs., lb	30	35
Sage, ozs., lb	18	20
Spearmint, lb	21	25
Thyme, ozs., lb	18	20
Tansy, ozs., lb	15	18
Wormwood, oz	20	22
Verba Santa, lb	38	44
HONEY, lb	13	15
HOPS, fresh, lb	20	25
INDIGO, Madras, lb	75	80
INSECT POWDER, lb	25	28
ISINGLASS, Brazil, lb	2 00	2 10
Russian, true, lb	6 00	6 50
LEAF, Aconite, lb	25	30
Bay, lb	18	20
Belladonna, lb	25	30
Buchu, long, lb	50	55
Short, lb	20	22
Coca, lb	35	40
Digitalis, lb	15	20
Eucalyptus, lb	18	20
Hyoscyamus	20	25
Matico, lb	70	75

Senna, Alexandria, lb	$ 25	$ 30
Tinnevelly, lb	15	25
Stramonium, lb	20	25
Uva Ursi, lb	15	18
LEECHES, Swedisb, doz	1 00	1 10
LICORICE, Solazzi	45	50
Pignatelli	35	40
Grasso	30	35
Y & S—Sticks, 6 to 1 lb., per lb.	27	30
" Purity, 100 sticks in box	75	75
" Purity, 200 sticks in box	1 50	1 50
" Acme Pellets, 5 lb. tins	2 00	2 00
" Lozenges, 5 lb. tins	1 50	1 75
" Tar, Licorice, and Tolu, 5 lb. tins	2 00	2 00
LUPULIN, oz	30	35
LYCOPODIUM, lb	70	80
MACE, lb	1 20	1 25
MANNA, lb	1 60	1 75
Moss, Iceland, lb	9	10
Irish, lb	9	10
MUSK, Tonquin, oz	46 00	50 00
NUTGALLS, lb	21	25
Powdered, lb	25	30
NUTMEGS, lb	1 00	1 10
NUX VOMICA, lb	10	12
Powdered, lb	25	27
OAKUM, lb	12	15
OINTMENT, Merc., lb. ½ and ½	70	75
Citrine, lb	45	50
PARALDEHYDE, oz	15	18
PEPPER, black, lb	22	25
Powdered, lb	25	30
PITCH, black, lb	3	4
Bergundy, true, lb	10	12
LASTER, Calcined, bbl. cash	2 25	3 25
Adhesive, yd	12	13
Belladonna, lb	65	70
Galbanum Comp., lb	80	85
Lead, lb	25	30
POPPY HEADS, per 100	1 00	1 10
ROSIN, Common, lb	2½	3
White, lb	3½	4
RESORCIN, white, oz	25	30
ROCHELLE SALT, lb	25	28
ROOT, Aconite, lb	22	25
Altbea, cut, lb	30	35
Belladonna, lb	25	30
Blood, lb	15	16
Bitter, lb	27	30
Blackberry, lb	15	18
Burdock, crusbed, lb	18	20
Calamus, sliced, white, lb	20	25
Canada Snake, lb	30	35
Cohosh, black, lb	15	20
Colcbicum, lb	40	45
Columbo, lb	20	22
Powdered, lb	25	30
Coltsfoot, lb	38	40
Comfrey, crushed, lb	20	25
Curcuma, powdered, lb	13	14
Dandelion, lb	15	18
Elecampane, lb	15	20
Galangal, lb	15	18
Gelsemium, lb	22	25
Gentian or Genitan, lb	9	10
Ground, lb	10	12
Powdered, lb	13	15
Ginger, African, lb	18	20
Po., lb	20	22
Jamaica, blchd., lb	27	30
Po., lb	30	35
Ginseng, lb	3 00	3 25
Golden Seal, lb	75	80
Gold Thread, lb	90	95
Hellebore, white, powd., lb	12	15
Indian Hemp	18	20
Ipecac, lb	1 30	1 50
Powdered, lb	1 60	1 70
Jalap, lb	55	60
Powdered, lb	60	65
Kava Kava, lb	40	90
Licorice, lb	12	15
Powdered, lb	13	15
Mandrake, lb	13	18
Masterwort, lb	16	40
Orris, Florentine, lb	30	35
Powdered, lb	40	45
Pareira Brava, true, lb	40	45
Pink, lb	75	80
Parsley, lb	30	35
Pleurisy, lb	20	25
Poke, lb	15	18
Queen of the Meadow, lb	$ 18	$ 20
Rhatany, lb	20	30
Rhubarb, lb	75	2 50
Sarsaparilla, Hond, lb	40	45
Cut, lb	50	55
Senega, lb	55	65
Squill, lb	13	15
Stillingia, lb	22	25
Powdered, lb	25	27
Unicorn, lb	38	40
Valerian, English, lb. true	20	25
Virginia, Snake, lb	40	45
Yellow Dock, lb	15	18
RUM, Bay, gal	2 25	2 50
Essence, lb	3 00	3 25
SACCHARIN, oz	1 25	1 50
SEED, Anise, Italian, sifted, lb	13	15
Star, lb	35	40
Burdock, lb	30	35
Canary, bag or less, lb	5	6
Caraway, lb	10	13
Cardamom, lb	1 25	1 50
Celery	30	35
Colchicum	50	60
Coriander, lb	10	12
Cumin, lb	15	20
Fennel, lb	15	17
Fenugreek, powdered, lb	7	9
Flax, cleaned, lb	3½	4
Ground, lb	4	5
Hemp, lb	5	6
Mustard, white, lb	11	12
Powdered, lb	15	20
Pumpkin	25	30
Quince, lb	65	70
Rape, lb	8	9
Strophanthus, oz	50	55
Worm, lb	22	25
SEIDLITZ MIXTURE, lb	25	30
SOAP, Castile, Mottled, pure, lb	10	12
White, Conti's, lb	15	16
Powdered, lb	25	35
Green (Sapo Viridis), lb	15	25
SPERMACETI, lb	55	60
TURPENTINE, Chian, oz	75	80
Venice, lb	10	12
WAX, White, lb	50	75
Yellow	40	45
WOOD, Guaiac, rasped	5	6
Quassia chips, lb	10	12
Red Saunders, ground, lb	5	6
Santal, ground, lb	5	6

CHEMICALS.

ACID, Acetic, lb	12	13
Glacial, lb	45	50
Benzoic, English, oz	20	25
German, oz	10	12
Boracic, lb	15	16
Carbolic Crystals, lb	25	30
Calvert's No. 1, lb	2 10	2 15
No. 2, lb	1 35	1 40
Citric, lb	50	55
Gallic, oz	10	12
Hydrobromic, diluted, lb	30	35
Hydrocyanic, diluted, oz. bottles doz	1 50	1 60
Lactic, concentrated, oz	22	25
Muriatic, lb	3	5
Chem, pure, lb	18	20
Nitric, lb	10½	13
Chem. pure, lb	25	30
Oleic, purified, lb	75	80
Oxalic, lb	12	13
Phosphoric, glacial, lb	1 00	1 10
Dilute, lb	13	17
Pyrogallic, oz	35	38
Salicylic, white, lb	1 00	1 10
Sulphuric, carboy, lb	2½	2¾
Bottles, lb	5	6
Chem. pure, lb	18	20
Tannic, lb	90	1 10
Tartaric, powdered, lb	30	32
ACETANILID, lb	90	1 00
ACONITINE, grain	4	5
ALUM, cryst., lb	1¾	3
Powdered, lb	3	4
AMMONIA, Liquor, lb., .880	10	12
AMMONIUM, Bromide, lb	80	85
Carbonate, lb	14	15
Iodide, oz	35	40
Nitrate, crystals, lb	40	45
Muriate, lb	12	16
Valerianate, oz	$ 55	$ 60
AMYL, Nitrite, oz	16	18
ANTINERVIN, oz	85	00
ANTIKAMNIA	1 25	1 30
ANTIPYRIN, oz	1 00	1 10
ARISTOL, oz	1 85	2 00
ARSENIC, Donovan's sol., lb	25	30
Fowler's sol., lb	13	15
Iodide, oz	50	55
White, lb	6	7
ATROPINE, Sulp. in ⅛ ozs. 80c., oz	5 00	5 00
BISMUTH, Ammonia-citrate, oz	35	40
Iodide, oz	50	55
Salicylate, oz	30	35
Subcarbonate, lb	2 25	2 40
Subnitrate, lb	2 00	2 10
BORAX, lb	9	10
Powdered, lb	10	11
BROMINE, oz	8	13
CADMIUM, Bromide, oz	20	25
Iodide, oz	45	50
CAFFEINE, oz	50	55
Citrate, oz	50	55
CALCIUM, Hypophosphite, lb	1 50	1 60
Iodide, oz	95	1 00
Phosphate, precip., lb	35	38
Sulphide, oz	5	6
CERIUM, Oxalate, oz	10	12
CHINOIDINE, oz	15	18
CHLORAL, Hydrate, lb	1 00	1 10
Croton, oz	75	80
CHLOROFORM, lb	60	1 90
CINCHONINE, sulphate, oz	25	30
CINCHONIDINE, Sulph., oz	15	20
COCAINE, Mur., oz	7 50	8 50
CODEIA, ⅛ oz	80	90
COLLODION, lb	65	70
COPPER, Sulph., (Blue Vitrol) lb.	6	7
Iodide, oz	65	70
COPPERAS, lb	1	3
DIURETIN, oz	1 60	1 65
ETHER, Acetic, lb	75	80
Sulphuric, lb	40	50
EXALGINE, oz	1 00	1 10
HYOSCYAMINE, Sulp., crystals, gr.	25	30
IODINE, lb	4 75	5 50
IODOFORM, lb	6 00	7 00
IODOL, oz	1 40	1 50
IRON, by Hydrogen	80	85
Carbonate, Precip., lb	15	16
Sacch., lb	30	35
Chloride, lb	45	55
Sol., lb	13	16
Citrate, U.S.P., lb	90	1 00
And Ammon., lb	70	75
And Quinine, lb	1 50	3 00
Quin. and Stry., oz	18	30
And Strychnine, oz	13	15
Dialyzed, Solution, lb	50	55
Ferrocyonide, lb	55	60
Hypophosphites, oz	25	30
Iodide, oz	40	45
Syrup, lb	40	45
Lactate, oz	5	6
Pernitrate, solution, lb	15	16
Phosphate scales, lb	1 25	1 30
Sulphate, pure, lb	7	9
Exsiccated, lb	8	10
And Potass. Tartrate, lb	80	85
And Ammon Tartrate, lb	80	85
LEAD, Acetate, white, lb	13	15
Carbonate, lb	7	8
Iodide, oz	35	40
Red, lb	7	9
LIME, Chlorinated, bulk, lb	4	5
In pakages, lb	6	7
LITHIUM, Bromide, oz	30	35
Carbonate, oz	30	35
Citrate, oz	25	30
Iodide, oz	50	55
Salic ate, oz	35	40
MAGNESIUM, Calc., lb	55	60
Carbonate, lb	18	20
Citrate, gran., lb	35	40
Sulph. (Epsom salt), lb	1¾	3
MANGANESE, Black Oxide, lb	5	7
MENTHOL, oz	55	66
MERCURY, lb	75	80
Ammon (White Precip.)	1 25	1 30
Chloride, Corrosive, lb	1 00	1 10
Calomel, lb	1 00	1 10
With Chalk, lb	60	65

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the *special consideration* of the Business Notices.

BOXES.—Boxes, boxes, boxes, all kinds, makes, and sizes, for druggists' use, are supplied by the Hemming Bros. Co., Limited, Toronto, Ont.

FANCY GOODS.—Attention is directed to the advertisement of H. H. Fudger, who offers to the drug trade special lines in fancy goods and novelties particularly adapted to the trade.

PAYSON'S INK.—By reference to our advertising columns it will be noticed that the London Drug Co., London, Ont., are, together with the parent house in Montreal, general agents for Canada for Payson's Indelible Ink.

ARECA NUT TOOTH SOAP.—This delightful toilet article, manufactured by the Martin, Bole & Wynne Co., of Winnipeg, Man., is advertised in this issue. If you have none in stock, include it in your next order to your jobber.

REDUCTION IN PRICE.—Read the advertisement of the Powell & Davis Co. in this issue, who announce a reduction in price of their well known *Fly Felts*. These goods command a ready sale, are true fly destroyers, and afford a good margin of profit.

The close proximity of the establishment of Buntin, Gillies & Co., Hamilton, to the different drug houses of that city make it a convenient source of supply for stationery, school supplies, etc. Parcels can come as enclosures, thus saving charges for carriage.

SPECIAL LINES OFFERED.—Elliot & Co., Front street west, Toronto, offer this month a number of special lines in their advertisement on page 74a. The popularity of some of their special package goods, which are put in handsome cartons, makes them a particularly attractive form of goods for the retail druggists. We hope in an early issue to make an extended mention of this, one of the pioneer wholesale drug houses of the country.

As will be seen by our advertising columns, Dr. W. E. Hamill announces the formation of classes in Optics and Refraction, specially adapted for druggists who wish to obtain the knowledge whereby they may properly fit their patrons with spectacles. As the doctor is a well-known specialist in diseases of the eye, and has recently returned from a two years' visit to the eye hospitals of America and England, we can cordially recommend this course to our readers.

GARFIELD TEA.—Amongst the large number of remedies which have been placed before the public in the form of *Teas* for medicinal use none, we believe, holds a higher place in public estimation than the celebrated Garfield Tea. Druggists who are anxious and willing to increase their sales and enhance the profits of their business can obtain a quantity of free sample packages and advertising matter, charges prepaid, on application to the manufacturers, D. Dunsmore & Co., 271 Queen street east, Toronto, Ont.

FLY SEASON.—As the season is approaching when the demand for fly papers will be one of the most frequent of calls on the druggist, we would just remind our readers, and we are sure a reminder is all that is necessary, of the necessity for having on hand a good supply of Wilson's Fly Pads. These pads are so universally known throughout Canada that any druggist's stock would be very incomplete, and his sales materially lessened, if he were compelled to say, "We are just out of them." Place your order early. See advertisement.

A MANUFACTURING COMPANY ASSIGNS.—The J. S. Carroll Manufacturing Company, makers of soda water apparatus, have made an assignment for the benefit of their creditors to Charles K. Duffield and Daniel Kornhau. The company was incorporated in 1894. The deed of assignment is dated the 4th inst., and is signed by J. S. Carroll, president, and George W. Bean, secretary. It is said the cause of the failure is numerous suits brought by big soda water apparatus corporations for alleged infringement of patents. The liabilities will be less than $10,000.

MAJOR'S CEMENT.—A. Major, who started the manufacture of Major's Cement in 1876, has moved from 232 William street, New York, to 461 Pearl street, near Park Row, as the building he formerly occupied is to be taken down. It is one of the old landmarks of New York city, owned by the Rhinelander estate. This is the first time Mr. Major has been compelled to move in fifteen years. He is well recompensed, however, for his trouble, as he has moved into a more spacious building, located on a wide street with good sidewalk facilities, and has a store front where he can exhibit his goods to advantage, also the different inducements which he offers to the trade, such as thermometers of different sizes, signs, folding chairs, etc.

THE PRINCESS OF WALES AND THE EMPRESS OF RUSSIA—RUSSIA'S EMPRESS GAINS STRENGTH.—The producers of "Mariani Wine" (Vin Mariani) should, according to report, soon have a splendid market in Russia for their nerve and brain tonic, as the Dowager Empress has, at the suggestion of the Princess of Wales, drunk it since the death of her Consort, with the most remarkable and beneficial results. It seems that Her Majesty is one of the many delicate persons with whom stimulating drugs like quinine, iron, and Peruvian bark disagree, but such is not the case with the wine tonic referred to. It is well known that the Princess of Wales also derived increased strength of brain and nerves from it during her last great trials. Moreover, in consequence of the benefits obtained by the Empress, a great demand for this tonic has sprung up among the ladies of Russian aristocracy suffering from "nerves."—*The Court Journal*, London, Jan. 12, 1895.

Books and Magazines.

The substantial value of "Current History" as the most convenient and concise record published of the world's doings, is becoming more and more recognized. In breadth of scope, reliability of information, clearness of statement, freedom from bias, judiciousness of treatment, and systematic arrangement for reference purposes, this publication has no competitor. Its place as a standard work of reference has long been assured, and it receives the strong endorsement of eminent men in all walks of life, and of all shades of political and religious belief. Buffalo, N.Y.: Garretson, Cox & Co., publishers. Paper, $1.50 a year; bound in cloth, gilt stamped, $2.00; half morocco, $2 50. Sample copies, 10 cents. Sample pages and circulars, free.

THE April number of *Frank Leslie's Popular Monthly* contains a beautifully illustrated article, entitled "How to Become a Prima Donna," written by W. de Wagstaffe. Other pictorial and literary features of this number are: A biographical sketch of Count Yamagata, the contemporary Japanese Von Moltke, written expressly for *Frank Leslie's Popular Monthly* by Teiichi Yamagata, a near relative of the great Field Marshal; "The World Awheel," being a chapter on the evolution of the bicycle and *la Reine Bicyclette*, by Henry Tyrrell; "Homes in Japan," by George Donaldson; and "Taxidermy as an Art," with illustrations by W. H. Drake, written by Frank A. Chapman, of the American Museum of Natural History. There are also a number of good short stories and poems by distinctively popular writers.

An Easter Magazine.

Probably no two words in the English language are more misused and abused than "lady" and "woman," and there is much wisdom, therefore, in a popular discussion of the proper usage of the words, such as is given in the April *Ladies' Home Journal*, by Margaret Deland, Mrs. Burton Harrison, and Sarah Orne Jewett. "The Burning Question of Domestic Service" is treated intelligently and interestingly by the Countess of Aberdeen. The cover of this April *Journal* is a reproduction of two of C. D. Gibson's most stylish and charming girls, and all through the issue is the freshness and daintiness of springtime and Easter days. This ideal magazine is sold for ten cents a number and one dollar a year by The Curtis Publishing Company, of Philadelphia.

Iodide, Proto, oz	$ 35	$ 40
Bin., oz	25	30
Oxide, Red, lb	1 15	1 20
Pill (Blue Mass), lb	70	75
MILK SUGAR, powdered, lb	30	35
MORPHINE, Acetate, oz	2 00	2 10
Muriate, oz	2 00	2 10
Sulphate, oz	2 00	2 10
PEPSIN, Saccharated, oz	35	40
PHENACETINE, oz	35	38
PILOCARPINE, Muriate, grain	20	22
PIPERIN, oz	1 00	1 10
PHOSPHORUS, lb	90	1 10
POTASSA, Caustic, white, lb	55	60
POTASSIUM, Acetate, lb	35	40
Bicarbonate, lb	15	17
Bichromate, lb	14	15
Bitrat (Cream Tart.), lb	22	25
Bromide, lb	55	60
Carbonate, lb	12	13
Chlorate, Eng., lb	18	20
Powdered, lb	20	22
Citrate, lb	70	75
Cyanide, lb	40	50
Hypophosphites, oz	10	12
Iodide, lb	4 00	4 10
Nitrate, gran, lb	8	10
Permanganate, lb	40	45
Prussiate, Red, lb	50	55
Yellow, lb	32	35
And Sod. Tartrate, lb	25	30
Sulphuret, lb	25	30
PROPLYLAMINE, oz	35	46
QUININE, Sulph, bulk	30	32
Ozs., oz	35	38
QUINIDINE, Sulphate, ozs., oz	16	20
SALICIN, lb	3 75	4 00
SANTONIN, oz	20	22
SILVER, Nitrate, cryst, oz	90	1 00
Fused, oz	1 00	1 10
SODIUM, Acetate, lb	30	35
Bicarbonate, kgs., lb	2 75	3 00
Bromide, lb	63	65
Carbonate, lb	3	6
Hypophosphite, oz	10	12
Hyposulphite, lb	3	6
Iodide, oz	$ 40	$ 43
Salicylate, lb	1 75	1 80
Sulphate, lb	2	5
Sulphite, lb	8	10
SOMNAL, oz	85	00
SPIRIT NITRE, lb	35	65
STRONTIUM, Nitrate, lb	18	20
STRYCHNINE, crystals, oz	1 00	1 10
SULFONAL, oz	34	35
SULPHUR, Flowers of, lb	2½	4
Pure precipitated, lb	13	20
TARTAR EMETIC, lb	50	55
THYMOL (Thymic acid), oz	55	60
VERATRINE, oz	2 00	2 10
ZINC, Acetate, lb	70	75
Carbonate lb	25	30
Chloride, granular, oz	13	15
Iodide, oz	60	65
Oxide, lb	13	60
Sulphate, lb	9	11
Valerianate, oz	25	30
ESSENTIAL OILS.		
OIL, Almond, bitter, oz	75	80
Sweet, lb	50	60
Amber, crude, lb	40	45
Rec't, lb	60	65
Anise, lb	3 00	3 25
Bay, oz	50	60
Bergamot, lb	3 75	4 00
Cade, lb	90	1 00
Cajuput, lb	1 60	1 70
Capsicum, oz	60	65
Caraway, lb	2 75	3 00
Cassia, lb	1 75	1 80
Cedar	55	85
Cinnamon, Ceylon, oz	2 75	3 00
Citronelle, lb	80	85
Clove, lb	1 00	1 10
Copaiba, lb	1 75	2 00
Croton, lb	1 50	1 75
Cubeb, lb	2 50	3 00
Cumin, lb	5 50	6 00
Erigeron, oz	20	25
Eucalyptus, lb	1 50	1 75
Fennel, lb	1 60	1 75
Geranium, oz	$1 75	$1 80
Rose, lb	3 20	3 50
Juniper berries (English), lb	4 50	5 00
Wood, lb	70	75
Lavender, Chiris. Fleur, lb	3 00	3 50
Garden, lb	1 50	1 75
Lemon, lb	2 00	2 10
Lemongrass, lb	1 50	1 60
Mustard, Essential, oz	60	65
Neroli, oz	4 25	4 50
Orange, lb	2 75	3 00
Sweet, lb	2 75	3 00
Origanum, lb	65	70
Patchouli, oz	80	85
Pennyroyal, lb	2 50	2 75
Peppermint, lb	4 25	4 50
Pimento, lb	2 60	2 75
Rhodium, oz	80	85
Rose, oz	7 50	11 00
Rosemary, lb	70	75
Rue, oz	25	30
Sandalwood, lb	5 50	7 50
Sassafras, lb	75	80
Savin, lb	1 60	1 75
Spearmint, lb	3 75	4 00
Spruce, lb	65	70
Tansy, lb	4 25	4 50
Thyme, white, lb	1 80	1 90
Wintergreen, lb	2 75	3 00
Wormseed, lb	3 50	3 75
Wormwood, lb	4 25	4 50
FIXED OILS.		
CASTOR, lb	9	11
COD LIVER, N.F., gal	1 25	1 30
Norwegian, gal	2 00	2 10
COTTONSEED, gal	1 10	1 20
LARD, gal	90	1 00
LINSEED, boiled, gal	60	63
Raw, gal	58	61
NEATSFOOT, gal	1 00	1 10
OLIVE, gal	1 30	1 35
Salad, gal	2 25	2 40
PALM, lb	12	13
SPERM, gal	1 75	1 80
TURPENTINE, gal	60	65

The Standard Brands.
MILLIONS OF EACH BRAND Sold Annually.
'Cable Extra' 'El Padre' 'Mungo' and 'Madre e'Hijo'
S. DAVIS & SONS MONTREAL, P.Q.

"DERBY PLUG," 5 and 10 cts., "THE SMOKERS' IDEAL," "DERBY," "ATHLETE" CIGARETTES, ARE THE BEST.

D. RITCHIE & CO., - - Montreal.

Drug Reports.

Canada.

Business remains quiet, purchases being small, and there is a general disposition to hold back, awaiting the opening of spring trade. There have been but few failures in the drug trade during the last month, the worst feature being the increase in "cutting" which has developed in several additional places.

In prices there is not much of change to note.

Quinine is steady at former prices.

Opium remains as before; the tendency in foreign markets is downward.

Citric acid is advancing; tartaric acid, easy.

Camphor is firm.

All preparations of bromine are higher, that article having advanced very much in price.

Linseed oils remained unchanged.

Spirits of turpentine again advanced.

England.

LONDON, March 27, 1895.

There has been further improvement in the chemical and drug markets during the month, and a fair export demand.

Carbolic acid is easy, but held firmly for the summer months.

Chlorate of potash is weak, and borax lower. Mercurials remain unchanged.

Cochineal is dearer, and coriander has advanced.

Cocaine is very firm at a recent advance. Cod-liver oil has been tending downwards during the last fortnight.

Camphor was advanced slightly by English manufacturers early in the month, and almond oil was also raised a point.

Opium is dull. Quinine steady, and prices well maintained.

Saffron is dearer, but jalap, senega, and ipecacuanha are easier. Turpentine has shown an increased value during the whole month.

An Expensive Substance.

One article which does not yet appear in our Price Current is the new element Argon. We might state, however, for intending purchasers, that at present quotations it is worth $20,000 per cubic inch.

Pure insect powder has commenced to be in demand. Prices are about the same as last year. We would warn our friends not to be induced by a few cents a pound to buy any powder on which they cannot entirely rely. Its a "penny wise and pound foolish" policy. Paris green will bring about same money as last year. Canadian samples offered are much ahead of last year; it is a nice color and runs freely. We would advise supporting home manufacture, everything being equal. Cocaine has made a decided advance in price. Disinfectants will likely stiffen in price as the season opens.

Valerianate of ether is claimed to be a specific in persistent hiccough.

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VII. TORONTO, MAY, 1895. No. 5

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

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New advertisements or changes to be addressed

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20 Bay St. TORONTO, ONT.

EUROPEAN AGENCY:
BROCK & HALIFAX, Aldermary House, Watling St.,
LONDON, E.C., ENGLAND.

CONTENTS.

Ontario College of Pharmacy.
TRADE NOTES.
Prince Edward Island Notes.
Manitoba Notes.
Nova Scotia Notes.
CORRESPONDENCE—Dispensing Difficulties.
College of Pharmacy.
Suggested B. P. Emulsions.
Creosote Syrup.
Pharmacy in England.
Enlarged Faculty of the School of Pharmacy of Northwestern University, Chicago.
Pharmaceutical Examinations.
A Polyglot Apothecary.
The Action of Diastase on Cold Starch Paste.
Emulsions.
Chemistry for the Pharmacist.
Should Doctors Dispense?
Rhubarb.
A Successful Firm.
The Ointments of the new Pharmacopœia.
EDITORIAL.—A Dominion Pharmaceutical Association—Customs Decision.
The Extra-Pharmacopœia.
An Advertising Story with a Moral.
The Chemistry of Photography.
A Severe Case.
The Early History of Phosphorus.
Glycerine at $19 a ton.
Public Misuse of Carbolic Acid.
Paraffin as a Secondary Ingredient in Pomades.
On the Determination of Morphine in Opium.
Substitute for a Funnel.
PHARMACY ABROAD.
Plastic Gelatine.
Territories' Pharmaceutical Association.
FORMULARY.
Sulphides of Zinc.
Pharmaceutical Notes.
Bars—Salicylate of Soda.
PHOTOGRAPHIC NOTES.
Wintergreen Oil.
The Metric System in England.
Therapeutic Serums.
Salts of Potash.
BUSINESS NOTICES.
BOOKS AND MAGAZINES.
DRUG REPORTS

Ontario College of Pharmacy.

The final examinations of the Ontario College of Pharmacy have been in progress at the college building during the last few days. One hundred and four candidates presented themselves for examination, ninety-nine of them offering on all subjects. The class this year has been a remarkably good one, and the results, which will be known in the course of a few days, should show a very creditable percentage of successful candidates. The oral examinations were specially thorough, and the papers, which we publish, show the character of the examinations undergone, and should be somewhat of a criterion as to the ability of the students who succeed. Objections have sometimes been taken as to the advisability of publishing these papers, but we believe it is due to the druggists of the province that they should see and judge as to the work being done in the college, and also as to what the graduates' qualifications are who may apply for positions as assistants.

SEMI-ANNUAL EXAMINATIONS, MAY, 1895.

CHEMISTRY.

Examiner:—B. JACKES.

Time allowed, two hours.

1. Write equations illustrating the action of H_2S on: (*a*) Sol Caustic Potash. (*b*) Chlorine Gas. (*c*) Nitric Acid. (*d*) Ammonium Hydrate. Value 9.

2. Illustrate the statement that Sulphur in various compounds apparently plays the part of a Monad, Dyad, Tetrad, and Hexad. Value 11.

3. When Zinc is added to Sulphuric Acid and water Hydrogen is given off, does the gas come from the acid or the water? Give reasons for your answers. Value 10.

4. Write a short note on the chemistry of Iron and a few of its compounds. Value 9.

5. Explain change of yellow Phosphorus to red variety. Give chemical formulæ of Ortho, Pyro, and Meta-Phosphoric Acid, and distinguish by chemical tests. Value 11.

6. Give method of determining the proportions of C and H in an organic compound. Value 9.

7. How much Nitrous Oxide measured at a tem. of 50° C., and 780^{mm} Bar., may be obtained from 250 grams Ammonium Nitrate? Value 11.

8. Describe two methods of Soda manufacture on a large scale, giving by-products.

(*a*) Explain the action of artificial refrigerating machines. Value 10.

9 and 10. Oral examination and recognition of samples. Value 20. Total 100.

PHARMACY.

Examiner:—F. T. HARRISON.

Time allowed, two hours.

1. What menstruum would you employ if given a drug containing:

(*a*) Gum, Sugar, Alkaloids, Albuminoids, Chlorophyll, Resin? Value 3.

(*b*) Volatile Oil, Chlorophyll, Resin, Tannin, Dextrine, Albuminoids? Value 3

(*c*) Glucosides, Alkaloids, Tannin, Sugar, Albuminoids, Fixed Oil? Value 3.

In each case it being desired to extract the first four principles and reject the balance.

2. Give a brief outline of the Assay of Opium, stating reasons for each step. What per cent. of Morphine is required to be present in the Powdered Opium. Value 10.

3. State how the following Medicated Waters are prepared, and describe briefly all necessary apparatus: Aq. Menth. pip., Aq. Camph., Aq. Rosæ., Aq. Chlorof. Value 12.

4. Give strength, menstruum used, and method of extraction employed for the following: Tincture of Opium, Tincture of Aconite, Ammoniated Tincture of Valerian, Strong Tincture of Ginger. Value 12.

5. Describe fully the preparation of Liq. Potass. If, on testing the sample, it be found to have a specific gravity of 1.100 and to effervesce with Diluted Hydrochloric Acid, how would you proceed to make it correspond to the B. P. requirements? Value 10.

6. Describe the preparation of Saccharated Carbonate of Iron. State why sugar is used, how it should be kept, the per cent. of Ferrous Carbonate which ought to be present, and what are its ordinary impurities? Value 10.

7. I have a sample of alcohol. Sp. gr. .8172, consequently containing 92% by weight of absolute alcohol, and is 65.98 O. P

(*a*) How many fluid ounces will be required to make 1 pint Imperial of Rectified Spirits? Value 6.

(*b*) How many fluid ounces will be re-

quired to make 1 pint Imperial Proof Spirits? Value 4.

8. Describe a Hydrometer. What is the principle on which it works, and for what is it used? Value 7.

9 and 10. Oral and recognition of Specimens. Value 20.

Prescriptions.

Examiner:—W. Murchison.

Time allowed, two hours.

Write the following in abbreviated form:

1. Recipe:
   Quininæ Sulphatis, grana sexdecim,
   Strychninæ Sulphatis, grani duas quintas partes,
   Acidi Hydrochlorici diluti, minima octoginta,
   Tincturæ Cardamomi Compositæ, drachmas duas cum semisse,
   Syrupi, uncias duas,
   Aquæ, unciam et drachmas duas.
   Misce.
   (*a*) If dispensing, what size bottle would you use?
   (*b*) State quantity of Strychnine in each drachm. Value 10.

2. Indicate by example, or by setting forth, a number of glaring faults in ordinary prescription writing. Value 10.

3. (*a*) What is meant by chemical incompatibility?
(*b*) To what results may it give rise in prescription compounding and in therapeutic effect?
(*c*) When substances lighter or heavier than the menstruum are ordered in prescriptions, what should suggest itself to the compounder as being a desirable method of effecting satisfactory union? Value 10.

4. Write a prescription for an eight-ounce mixture to contain in each drachm maximum doses of Strychnine, Arsenious Acid, Morphine, Chloral, and Tr. Strophanthus, using B P. compatible solutions of the first two. Value 10.

5. Give the English meaning of the following phrases, words, and abbreviations: Magnitudo hujus chartæ; Usque ad visicationem; Ubi non descendit alvus; Ap tres alias vices; Dosi pedetentim crescente.
Poculum; Pauxillum; Pugillus; Manipulus; Hodie; Heri; Meridies; Cœna; Jentaculum; Prandium; Ad gr. acid; Cont. rem.; C.m.s.; Ejusd.; Si vir. perm.; Value 10.

6. Translate the following prescriptions:
   Recipe:
   Extracti Colocynthidis, grana sexaginta,
   Fiant pilulæ tredecim, Sumat unam, sextis horis, donec commode purgetur.
   Recipe:
   Pilulæ Hydrargyri, scrupulum dimidium,
   Divide in duas partes; sumat unam statim, alteram circa mediam noctem.

7, 8, 9, 10. Oral.

Materia Medica.

Examiner:—J. Tolbert Pepper.

Time allowed, two hours.

1. What is Materia Medica? What is meant by Organic Materia Medica? By Inorganic? Give an example of each. Value 12.

2. What is Benzoin? How is it procured? What varieties are found in commerce? Where is it obtained? Name its properties and uses. What acid is obtained from it? Is this acid, as usually found in drug stores, made from Benzoin? If not, what is its source? Value 16.

3. Give the distinctive appearances of the following starches, making drawing to a scale if you prefer it: Maranta, Maize, Oat, Potato, Turmeric. Value 10.

4. Give, in a tabular form, the full Latin and common names, habitat, part used, and medicinal uses of Triticum, Hyoscyamus, Camphor, Kola, Galla, Sarsa, Vanilla, Coca. Value 20.

5. What safeguards or precautions would you suggest, so as to prevent deterioration in stock of the following: Powdered Extracts, Camphor, Volatile Oils, Menthol, Orris Root, Cloves, Dandelion Root, Ergot, Cantharides, Valerian Root. Value 10.

6. Give the English names and synonyms, if any, of the following: Cimicifuga, Cetraria, Krameria, Althæa, Spigelia, Colocynthis. Value 12.

7, 8, 9, and 10—Oral examination and recognition of Specimens.

Botany.

Examiner:—Chas. R. Sneath.

Time allowed, two hours.

1. Describe fully the structure of the stem of a member of the Rose family. Value 12.

2. Describe fully a typical flower. Explain these modifications, viz.: Imperfect, incomplete, achlamydeous. Value 10.

3. What are the characteristics of N. O. Crucifera? Note particularly the fruit. Value 10.

4. What are the Bryophyta? What classes are included in this division? Give a general description of plan of reproduction. Value 12.

5. What is inflorescence? How classified? Explain your classification. Explain and properly classify the following, viz.: Raceme, head, corymb, umbel. Value 10.

6. Explain fully the following terms: Monodelphous, plumule, chlorophyll, hypogynous stamens, stomata. Value 12.

7. Describe fully the Venation of the leaf given you. What are the common characteristics of the class of plants to which it belongs. Value 10.

8, 9, and 10—Oral. Value 24.

Dispensing.

Examiner:—A. R. Fraser.

Time allowed, three hours.

Mr. Jas. White.

1. R.—
   Mag. Sulph..... ℥iss.
   Magnes. Carb..... ℈iii
   Aq. Dist ad. .... ℥vi.
   M

℥i quaque quarta vel sexta hora. pro necessesit.
P.S.—"Graduate the doses on bottle." Value, 20.

Mr John Brown.

2. R.—
   Ext. Bellad..... grs. xx.
   Zinc Oxyd..... ℈ss.
   Vaseline..... ℥ss.
   M. ft. ung.
Appl. more dictu, bis die. Value, 20.

Mr. William Green.

3. R.—
   Ol. Morrhuae..... ℥ii.
   Pu. Acacia..... .... Q.S.
   Aq. ad..... ..... ℥iv.
   M. ft. Emulsio.
℥ii. T.D.S. ex aq. ℥ii. p.c. Value, 20.

Mr. Henry Black.

4. R.—
   Camphor..... .... .. gr. ii.
   Ferri Sulph... .... grs. iv.
   Pu. Aloes B..... grs. iv.
   M. ft. pil ii. Mitte xii.
Unam post prandium et coenam. Value, 20.

Mr. John Jones.

5. R.—
   Morph. Mur..... gr. ii.
   Fiat in Suppos..... .... iii.
Usus i. o. h. 2 dolore urgente. Value, 20.

Colleges and Graduates.

M. B. Annis, Phar. B., O.C.P., class of '94, formerly with C. D. Daniel & Co., of Toronto, has accepted a position with H. W. Galpin, 6th Avenue, New York city.

A. R. Johnston and T. T. Barnes, both graduates of the O.C.P, have accepted positions as dispensing clerks in Brooklyn, N.Y.

J. H. Seagars, class '94, O.C.P., and formerly with Dr. Slavin, Orillia, Ont., has obtained a good position in Newark, N.J.

One hundred and four candidates presented themselves for examination at the Ontario College of Pharmacy last week, 99 taking all subjects. And now for the University and degree of Phar. B.

Two students of the Montreal College of Pharmacy have entered actions for damages against the College Council for suspension. Those students who apologized for their insubordination were allowed to re enter, but two declined to apologize, and hence were not permitted to attend lectures.

J. J. McLaughlin, graduate of O.C.P., whose mineral water manufactory on Sherbourne street, Toronto, Ont., was blown up a short time ago, has returned from his stay in Aiken, S.C., whither he had gone for the benefit of his health, which, we are pleased to say, has been greatly benefited.

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Elixirs . . . . .
Medicinal Syrups
Liquors . . . .
Tinctures . . .
Green Soap . .
Chlorodyne. . .

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Also LIME JUICE CORDIAL.

COMPOUND SYRUP OF FIGS

Is a delicious cordial preparation of Alexandria Senna, representing 125 grains in each fluid ounce. The nauseating properties of the senna have been removed, so that there is presented a pleasant, mild, safe purgative. Its appearance is attractive, and speaks of care in preparation.

$3.75 per doz.

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Bromo-Seltzer
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Vin Mariani
Himalaya Asthma Remedy
Bryant's Root Beer
Adams' Root Beer
Hires' Root Beer
"Little Tanglefoot"
Tanglefoot
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Two Sizes

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Thrifty farmers, stockowners and carters all over the country are, by actual results, realizing that they cannot afford to be without a supply of
Dick's Blood Purifier Price 50c.
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Dick's Liniment for Cuts, Sprains, Bruises, etc. Price 25c.
Dick's Ointment. Price 25c.
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ALUM, in bbls.
ALUM POWDERED, in bbls.
FINEST EPSOM SALTS, in bbls.
FINEST SUBLIMED SULPHUR, in bbls.
ROLL SULPHUR, in bbls.
CHLORIDE LIME, in casks.
SALTPETRE CRYSTALS, in kegs.
SALTPETRE POWDERED, in casks.
POWDERED HELLEBORE, in bbls.
GLYCERINE, in tins.
WHITE CASTILE SOAP, bars.
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PARIS GREEN, in casks and drums.
GIBSON'S CANDIES, full assortment.

Your orders Solicited.

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Hair Curlers at Reduced Prices

PERFECTION DISPENSING TANKS

For Glycerine, Castor Oil, etc.

Hold one gallon. Price $1.00 each.

Trade Notes.

Rowan & Co., druggists, Stouffville, Ont., have sold out.

W. J. Morrow has opened a drug store in Vancouver, B.C.

G. H. Williams, druggist, Three Forks, B.C., has removed to Nakusp, B.C.

A. Young has purchased the drug business of Harrison & Co., Neepawa, Man.

W. A. Griffin & Co. have purchased the drug business of T. R. Morrow, B.C.

Dr. Anderson has purchased the drug business of James & Co., St. Thomas, Ont.

Reuben Hill, of Norwich, has purchased the drug business of Dr. J. C. Bell, Tilbury Centre, Ont.

George F. Hobart, of the drug firm of G. S. Hobart & Co., Kingston, Ont., was married, May 8th, to Miss Louise Fenwick, of that city.

The sheriff has taken possession of the drug stock of Alonzo Staples, of Fredericton, N.B., on executions issued on judgments recovered by Lyman, Sons & Co., Lawrence A. Wilson & Co., and Davis & Lawrence Co., of Montreal.

A Port Huron (Mich.) merchant has commenced the sale of patent medicines at cut rates, and, in order to meet the competition, the druggists of Sarnia, Ont., have reduced the prices on all proprietaries to cost in order to stop any further cutting.

The proprietors of Hawkers' Remedies, head office St. John, N.B., are about opening an office in New York city. Mr. Bernard, of "Luby's Hair Restorer," is establishing a branch at Boston, Mass., and Dr. J. G. Laviolette, of Montreal, is introducing his Syrup of Turpentine and other remedies through the medium of the Pharmacy Fair, now in progress at Boston.

Prince Edward Island Notes.

Messrs. Johnson & Johnson are the first to introduce white coats for their clerks, who look very neat in their new garb.

Mr. Fred de C. Davies expects to move in a few weeks into a new store which is being fitted up for him in "Beale's Corner," opposite Mr. Rankin's drug store.

Mr. Watson, of Charlottetown, has been fortunate in securing one of the very best business stands in the city. Messrs. George Carter & Co, seedsmen and stationers, have purchased the stock, lease, etc., of the Bazaar Store Company, and are moving into their premises, giving place to Mr. Watson, who expects to have his new drug store ready for occupation early in May. Mr. Watson is to be congratulated, as the new premises are in the very centre of traffic, and immediately opposite the market. The Charlottetown papers contain friendly and appreciative notices of the popularity of the long-established "Watson's Drug Store."

Mr. J. A. Gourlie, of Summerside, has been burnt out, saving only part of his stock. The loss was fairly well covered by insurance. Mr. Fred Davies, druggist, of Charlottetown, who was visiting Summerside, was one of the first to discover the fire. Mr. Gourlie, who intends building upon the old site, meanwhile occupies the next door premises. Mr. Silver, representative of Messrs. Simson Bros & Co., of Halifax, valued the stock for Mr. Gourlie.

Manitoba Notes.

The annual general meeting of the Pharmaceutical Association of Manitoba was held on the evening of April 5th at the Clarendon Hotel, Winnipeg. The members of the council and a good representation of city druggists were in attendance. The principal business transacted was the reception and adoption of reports of officers and examiners. The auditors' report showed the finances of the association to be in a good condition. The examiners reported the following candidates successful at the examinations: Major—Arthur Young, Miami; C. S. Touchbourne, Brandon; W. H. G. Gibbs, Selkirk; Charles Macdonald, Virden. Minor — Miss L. Wooodhun, Hartney; F. Hayes, Deloraine; H. E. Rogers, Winnipeg; W. Hamilton, Neepawa; W. B. Wilton, Morden; H. H. Casselman, Emerson. Mr. Arthur Young was awarded the gold medal for the highest average in the major, and Mr. Hayes the silver medal for the highest average in the minor, examination. Both students presented excellent papers, and were highly commended by the examiners. After the discussion of matters of minor importance the meeting adjourned. After the general meeting of the association the council held a meeting, the principal business transacted being the appointment of a registrar, their choice falling on Mr. W. D. Macdougall, of Winnipeg.

Mr. W. R. Bartlett, of Brandon, and Mr. B. M. Canniff, of Portage la Prairie, members of the Pharmaceutical Council, were in Winnipeg attending the annual meeting of the association.

Mr. W. H. G. Gibbs, who has been clerking for Mr. R. H. Gilhuly, of Selkirk, for the past three years, and a graduate at the recent examinations, has opened a drug store on Main street north, Winnipeg, in the block best known as the Northwest Trading Company's building.

Mr. C. H. Cranston, who has for many years represented leading wholesale houses on the road in western Canada, contemplates opening a drug store on the corner of Main street and Pacific avenue, Winnipeg.

Mr. Arthur Young, a graduate with honors at the recent examinations, left Winnipeg last week for Neepawa, Manitoba, where he will take up his residence.

Mr. E. S. Knowlton, Winnipeg, is removing his drug business from the corner of Main street and Pacific avenue to the Montreal block, Main street south, where he expects to open out with fresh additional stock. Mr. Knowlton has secured one of the best positions for a drug store in the city.

Nova Scotia Notes.

Messrs. Copeland & Co., of North Sydney, are about erecting a new drug store, which they propose to fit up in modern style.

Mr. A. A. Boreham, formerly of Halifax, and Mr. D. A. Winterbotham, for some years with Dr. MacGillvary, of Sydney, are entering into a partnership to carry on the drug business in the town of Sydney.

Mr. Clifford Mumford, who was for several years head clerk with T. M. Power, druggist, of Halifax, has opened a store on Campbell Road, and with his many friends feels confident he will do a thriving business.

Mr. R. O. Christie, who recently opened a store at Little Glace Bay, has been compelled to abandon business for the present. Mr. Christie has been suffering from ill health for some time, and now proposes to rest and recruit.

A recent issue of the Halifax papers contains the following: "At Delamere, Grand Pre, on April 6th, to Mr. and Mrs. Frank C. Simson, twin daughters."

The marriage took place, on April 23rd, of Walter S. Davison, buyer and stockkeeper for Simson Bros. & Co., to Miss Minnie Wallace, of Halifax. Though the hour was early a large number of their friends assembled to witness the ceremony. The firm presented Mr. Davison with a handsome piece of plate, and his popularity among his associates was attested by the receipt from the employees of Messrs. Simson Bros. & Co. of a silver service.

Messrs. Hattie & Mylius, the well-known druggists of Halifax, will shortly move into new premises on the corner of Hollis and Sackville streets. The fittings are now about in, and all the appointments give promise of being equal, if not superior, to those of any drug store in the Maritime Provinces. Their friends are predicting for these gentlemen a prosperous and increasing business. The prescription trade of this firm is already of large proportions.

Mr. Alfred A. Patterson, formerly with Simson Bros. & Co., and who has been for over a year in South Africa, is now on his way home. Mr. Patterson comes, with improved health, to take up his old position.

Our thanks are due the promoters of the Pharmacy Fair, now in progress at Boston, Mass., for complimentary ticket. The fair, which commenced May 1st, will be open until the 25th inst.

Correspondence.

Dispensing Difficulties.

Editor CANADIAN DRUGGIST:

I have on hand a sample of bismuth subnitrate, which, when mixed with ac. hydrocyanic, becomes quite black. What is the impurity in the bismuth?

I have also had sodium salicylate which became quite dark when dissolved in water, and after two or three days the solution became almost as black as ink. What was the matter with this sample?

Toronto, May 5th, 1895. J.A.

[Can some of our readers explain these difficulties?—ED. C.D.]

College of Pharmacy.

The annual graduating exercises of the St. Louis College of Pharmacy took place April 18th, before a large and appreciative audience. The degrees were conferred by Prof. E. P. Walsh, vice-president of the college. The class this year was exceptionally large, numbering no less than forty-six members. The programme was interspersed with musical selections by Saenger's orchestra.

The conferring of degrees was followed by a valedictory on behalf of the faculty, delivered by Prof. H. M. Whelpley. He congratulated the class in well-chosen terms on the intellectual victory which they had achieved. He dwelt at length on the responsibilities of their chosen calling. The commercial side of pharmacy, he said, was fast being superseded by its professional aspects. He closed by exhorting the members of the class of '95 to emulate the greatness of the graduates who had gone before them, and never by word or deed to cast odium upon the fair name of their *alma mater*.

A pleasing feature of the exercises was the presentation to the faculty of a beautifully-engraved class plate by the class of '75, in commemoration of the twentieth anniversary of their graduation.

Suggested B. P. Emulsions.*

By CLAUDE F. HENRY.

The present-day demand for elegant pharmacy and agreeable medicine warrants, at least, the consideration of the claim of emulsions to a place in the next pharmacopœia. The object of the present note is to suggest a few formulæ for the emulsions most frequently in request. Speaking generally, a creamy emulsion is to be preferred to a paste, and as to flavor those I have suggested are what are personally agreeable to myself; but tastes differ, and these can be changed. Gum acacia has been adopted as the emulsifying agent, because of its being ready for use sooner than tragacanth, ghatti, Irish moss, etc., and requiring less preparation.

The following is the suggested formula for emulsio olei morrhuæ:

*Paper read at the Edinburgh Chemists' Assistants' Association.

Take of—	
Gum acacia	1 ounce.
Cod-liver oil	4 ounces.
Elixir of saccharin	40 minims.
Oil of cassia	2 minims.
Hypophosphite of soda	16 grains.
Hypophosphite of lime	16 grains.
Distilled water, *q.s.* to make	8 fluid ozs.

Make mucilage by dissolving the gum acacia in two ounces of the water. To this gradually add two ounces of cod-liver oil, stirring constantly until a thick emulsion is formed, then add two ounces more water, in which the hypophosphites have previously been dissolved, and stir in as before the remainder of the oil. Add next the saccharin elixir and the oil of cassia, mix thoroughly, and make up to eight fluid ounces with distilled water. A 50 per cent. white creamy emulsion is thus produced. 75 per cent. of oil can easily be incorporated, but such an emulsion requires more flavoring, and is not so well tolerated by the stomach.

In preparing the emulsion the whole gum, which can be broken up in a mortar to facilitate solution, should be used in preference to the powder, and the mucilage should be prepared fresh when required, the tendency to acidity being thus prevented. The formula would necessitate the inclusion of elixir of saccharin and oil of cassia in the B.P. The former is a very useful preparation, and that suggested by the B.P.C. unofficial formula committee should be chosen. The emulsio olei morrhuæ of the B.P.C. is not so good as the above. Its sickly color is an objection, and eggs are not well suited for pharmaceutical manipulation even when they can be obtained fresh. A satisfactory castor oil emulsion is also, I think, a B.P. want. The mistura olei ricini of the present B.P. is, I think, objectionable, because of its being prepared with liquor potassæ, and because of the quantity directed to be used, the maximum dose, 60 drops, being required for each six drachms of oil; of course this may not do much harm in the form in which it is taken, but it is an emulsion that is wanted, not a soap.

From the following formula a perfect emulsion can be made containing 50 per cent. of oil:

Take of—	
Gum acacia	½ ounce.
Castor oil	1 "
Elixir of saccharin	20 minims.
Oil of almonds	2 "
Oil of cloves	3 "
Distilled water, *q.s.* to make	8 fluid ozs.

Malt and cod-liver oil is now frequently prescribed, and a good thick emulsion can be made from this formula:

Take of—	
Gum acacia	1 ounce.
Cod-liver oil	4 ounces.
Liquid malt extract	4 "

Mix the malt extract with the gum acacia, let the mixture stand for four hours, then gradually stir in the cod-liver oil. No flavoring is required, but a few drops of saccharin elixir may be added. A more liquid preparation may be made by dissolving the gum in two ounces of water, adding one ounce of liquid malt extract, and stirring in slowly one ounce of cod-liver oil.

The only other emulsion in much demand is cod-liver oil with eucalyptus, which might be termed emulsio eucalypti co., or emulsio olei morrhuæ cum eucalypto, or cremor. eucalypti co. From the following formula a satisfactory preparation can be made:

Take of—	
Gum acacia	¾ ounces.
Cod-liver oil	4 "
Oil of eucalyptus	2 drachms.
Elixir of saccharin	1 drachm.
Oil of cassia	2 drops.
Distilled water, *q.s.* to make	8 fluid ozs.

Prepare in the same way as cod-liver oil emulsion, adding the eucalyptus oil after the cod-liver oil. The flavoring may be left out entirely; in fact, there is a danger of over-flavoring emulsions with the idea of making them very palatable; but disagreeable eructations are apt to occur after swallowing too highly flavored preparations. In closing this fragmentary note, I should like to say that some of the formulæ given are not quite suitable for stock preparations. They are merely suggestions for B.P. preparations, which, when prescribed, pharmacists can make up fresh, as ought always, in these instances, to be done.—*Pharmaceutical Journal and Transactions.*

Creosote Syrup.

Von G. Vulpius (*Suedd. Apoth. Ztg.*, 1895, No. 16) recommends the following procedure for making a syrup containing 10 per cent. of creosote: Triturate 10 parts of beechwood creosote with 3½ parts of calcined magnesia; let it stand, well covered, for several days, mixing it every hour for a few minutes; then pour upon it gradually, with constant stirring, a mixture of 16½ parts of peppermint water and 70 parts of simple syrup. The odor and taste can still more be covered by the addition of 10 drops of spirit of peppermint. Another, more convenient though not more expedient, process is this: The magnesia and creosote in the above proportions are put into a bottle and moistened with the peppermint water; then the simple syrup is added, and the whole is vigorously shaken. This is repeated at intervals of a few hours. At the end of two days the mixture will have become thick, so as to be unable to flow; but by vigorous shaking, or stirring with a glass rod, it can be rendered liquid again, after which it will not solidify again. On the contrary, the mixture becomes more limpid every day, but remains homogeneous, separating only after long standing, or not at all.—*Merck's Report.*

Messrs. Archdale Wilson & Co. report that their advance orders for fly pads are much larger this year than ever before.

READ THIS

Dear Sirs, St Marys, August 3rd, 1892.
The following may be of use to you: "A customer of mine, who keeps a butcher shop in this town, bought a 10 cent package of your Fly Pads from me and in ten days killed over A BUSHEL MEASURE OF FLIES." Yours truly,
F. G. SANDERSON.

IT WOULD TAKE OVER 300 SHEETS OF STICKY PAPER TO HOLD THIS BUSHEL OF FLIES

WILSON'S
FLY PADS
SOLD BY ALL DRUGGISTS

Caution

It is unsafe to sell Fly Poisons not distinctly marked "Poison" on each sheet. Some of the many imitations of

Wilson's
Fly Poison Pads

are put up in this cheap and dangerous way. In order to protect yourself in case of accident see that every sheet of Fly Poison you handle is labelled

Poison!

Wilson's Fly Poison Pads Kill 150 times as many flies for the money as sticky paper.

ARCHDALE WILSON & CO.,

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PREPARATIONS OF KOLA

Preparations of the Fresh (Undried) Nut.

Kolavin — A delicious wine, each tablespoonful representing 30 grains of the fresh (undried) Kola nuts. In full pints, $8.00 per dozen.

Kolabon — Elegant confections or bonbons, each representing 10 grains of fresh (undried) Kola. $4.00 per dozen boxes.

Fluid Kola — A concentrated liquid extract, each minim representing one grain of fresh (undried) Kola. Per pint, $3.50.

Preparations of the Dried Nut.

Stearns' Kola Cordial (The Original.)

A delicious cordial, each teaspoonful representing 15 grains of dried Kola. In 12 oz. bottles at $8.00 per dozen.

Compressed Tablets of Kola

Compressed Tablets of dried Kola, 10 grains each. Per 100, 25 cents.

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Our Claims on Kola.

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2. We introduced the first palatable preparation of Kola in the form of Stearns' Kola Cordial in 1893.

3. We originated the first and only preparation of fresh (undried) Kola in 1894, when Kolavin was introduced.

4. We to day are the only importers of fresh (undried) Kola from Africa.

5. We have done more scientific work on Kola than any other American house. (See our 80-page monograph issued last year, 1894.)

6. We have done more by liberal advertising in the pharmaceutical and medical press to call Kola to the attention of these professions than all other houses combined.

THEREFORE we consider ourselves headquarters for Kola and its preparations, and believe the professions will endorse our position.

Frederick Stearns & Co., Manufacturing Pharmacists,

(The introducers of Kola in America)

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Excels any 25-cent Soap on the Market. Nets the Retailer a good profit.

When sold at a very popular price it will not remain on your counters. Try a sample lot.

The quality of this soap is GUARANTEED. See that the name "BUTTERMILK" is printed as above "in green bronze," and the name "Cosmo Buttermilk Soap Company, Chicago," in diamond on end of package. Beware of imitations.

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KENNEDY'S
MAGIC CATARRH SNUFF
(REGISTERED)

A POSITIVE CURE FOR

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COLD IN THE HEAD
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HEADACHE, Etc.

It is reliable, safe, and sure, giving instant relief in the most distressing cases.

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CLEAN TO USE.

MARSHALL'S FLY CATCHER. PATENTED. WHEN COVERED PULL STRING BACK TO REMOVE FLIES, AND USE AGAIN. The Fly Paste for own use supplied in Tins at 2d. Manufactory, Henfield, Sussex.

Can be carried in the Pocket.

"THE ONLY REEL COMFORT."

MARSHALL'S
Fly & Mosquito Catcher

IS NOT OFFENSIVE TO THE SIGHT.

Catches more Insects than Sticky Papers.

DOES NOT SPOIL BY KEEPING.

GOOD IN ANY CLIMATE,
Therefore specially suitable for Export.

Promptly fixes the pests, and rapidly clears a room of these carriers of disease and contagion.

Catches successive crops by drawing the String to and fro, and at the same time Killing the Insects, thus there is no lingering torture.

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Best Cough Medicine

I ever used.—W. C. MILTENBERGER, Clarion, Pa., Dec. 29, 1894.———I sell Piso's Cure for Consumption, and never have any complaints.—E. SHOREY, Postmaster, Shorey, Kansas, Dec. 21st, 1894.

PISO'S CURE FOR CONSUMPTION. The Best Cough Syrup. Tastes Good. Use in time. Sold by Druggists. 25 CTS.

Pharmacy in England.

Quinine Lemonade—Cinchona Wine and Syrup Filters and Radam's Microbe Killer—The Assistant Lecturer at School of Pharmacy—Provincial Enterprise—Messrs. Richardson of Leicester.

(From Our Own Correspondent.)

During the recent outbreak of influenza the Chemists' Aerated and Mineral Waters Association introduced quinine lemonade as a certain preventive and useful tonic for this disease. The evidence in favor of the prophylactic properties of quinine, in large doses, is unquestionably very strong, and the introduction of a pleasant and palatable preparation, that could be safely recommended, was most opportune. The ammoniated tincture of quinine has obtained a very wide notoriety as a useful preventive, but has the drawbacks of not mixing clearly with water, and its taste is simply nauseous. Mr. Lunan has pointed out that it will mix clearly with plain aerated or "soda" water, but this does not affect its unpalatability. An easy and effectual method of disguising the extreme bitterness of quinine has yet to be suggested, and would come as a boon to many patients. It is well known that by dissolving quinine one increases its nauseousness, and that Anglo-Indians and others, who consume large doses of ten and twenty grains, simply suspend it in water. Recent attempts have been made by manufacturers of gelatine capsules to enclose the quinine with carbonate of ammonia in capsules, but the ammonia salt is a very troublesome addition. Certainly capsules of quinine are about the most satisfactory method we have at present of exhibiting the drug.

Under royal letters patent, Messrs. Fletcher, Fletcher & Co. have prepared a liquid extract of cinchona bark which is stated to possess certain advantages over the official preparations. Hydrobromic acid is employed for the purpose of extracting the whole of the alkaloids, and the acid liquid is evaporated at a low temperature and standardized so as to yield 5 per cent. of total alkaloids. The intimate combination of the alkaloids with hydrobromic acid is claimed to possess the advantage of enabling patients to take this preparation of bark, when the ordinary liquid extract of quinine itself produces the unpleasant symptoms of cinchonism. A further step in the elaboration of the pharmacy of this new extract has lately been taken by Messrs. Fletcher. They have successively introduced a syrup and wine of cinchona, each prepared from the liquid extract. These articles are palatable and effective tonics, and, introduced just after the influenza epidemic, they were seasonable and have already caught on.

We live in an age when reputations that have taken years to build up are shattered in a moment. Something of this reflective nature must have passed through the enraged mind of more than one filter manufacturer when the *British Medical Journal* brought the merciless skill of bacteriological examination to bear upon the claims put forward in favor of their filters. In the end, as your readers may remember, only three filters, out of more than a dozen of the principal ones advertised, were found to answer the tests imposed, and to effectively do what was claimed for them. Now, another journal has been tilting against Radam's Microbe Killer, and has published an analytical report in which it is stated that the following is the composition :

Analysis in parts per 100,000.

Ash on ignition	52
Sulphurous acid (H_2SO_3)	74.68
Chlorine (as chlorides)	2.82
Nitric acid (as nitrogen)	1.0

The net result, of course, is that it consists of a dilute solution of sulphurous acid in ordinary tap water. The commercial value is stated to be not more than six cents, whilst it is retailed at $2.56 per gallon. If I remember rightly, Dr. Eccles was concerned in a similar exposé in the United States some few years ago.

The school of the Pharmaceutical Society has been particularly unfortunate during the past few years in not securing the services of an acceptable assistant-lecturer in Chemistry and Physics. When Professor Dunstan took the chair of Chemistry, Mr. Dymond was appointed assistant-lecturer and was popular with the students and a fair lecturer. But, since then, the succession has been merely from bad to worse. Mr. Harrison, now in the laboratory of Messrs. Brady & Martin, wholesale and retail druggists, of Newcastle-on-Tyne, was also popular, and had a ready, free-and-easy manner that was not unpleasing to students. When he left, Professor Dunstan was anxious to appoint Mr. Carr, one of his colleagues in the Research laboratory, but the council wisely declined, or the matter was not pressed beyond committee. The present assistant-lecturer is neither popular amongst the students nor is his style appreciated. It is reported that in a lecture delivered recently he employed the word "obviously" no less than forty-nine times. Needless to say, it has been utilized as a *sobriquet*. But a short time ago, matters assumed a more serious aspect, as a petition was drawn up and signatures obtained, asking the council to remove him. Some of the ringleaders thought, however, that nothing would result, so the subject dropped. Still, it must have reached the ears of the president or some of the members of council. It is little short of scandalous that an office which each year is becoming more important, owing to the increasing number of appointments held by Professor Dunstan, should be delegated to any one who may be fortunate enough to hold a certain position in the Research laboratory. The relation of the two posts is most remote and an excellent analytical assistant might be an utter failure behind the lecture table. The students settle the matter to their own satisfaction, frequently, by staying away from the lectures. But it is high time that more attention should be paid to the qualification necessary for even subordinate posts in the staff of the official school of pharmacy.

Messrs. Richardson & Co., of Leicester, have fitted up all the requisite machinery to enable them to do their own drug grinding. This is an important and necessary step for all wholesale druggists, as depending upon drug-millers is very unsatisfactory. There was a time, it has been stated on the authority of the late Professor Redwood, when a druggist would send a case of rhubarb to the mill and instruct them to grind case and all! This is probably overdrawn, but in any work of outside manipulation some uncertainty is introduced, and, where it is performed under the supervision of the firm, it is probably more carefully and satisfactorily carried on. Since the light disintegrators have become popular and cheap, a good deal of the coarse grinding is superseded. Gentian is very well reduced by a disintegrator, and numerous other drugs are coarsely ground by means of these machines. As an instance of provincial enterprise, I mention the improvements inaugurated by Messrs. Richardson, as some imagine that only the wholesale houses in the capital can do these things properly. I understand Messrs. Richardson hold the contract for the supply of drugs, etc., for the Royal Navy, whilst for many years their name has figured in all the large contracts where pills are consumed. In accordance with a fashion greatly spreading amongst the wholesale houses, Messrs. Richardson's business was, a few years ago, converted into a limited liability company, but all the shares remain in the family.

Enlarged Faculty of the School of Pharmacy of Northwestern University, Chicago.

Illinois College of Pharmacy, Chicago, has added to its faculty two strong men of national reputation—Mr. Henry Kraemer, well known to the pharmacists of this country as the Reporter on Progress of Pharmacy of the American Pharmaceutical Association, and Mr. Jan B. Nagelvoort, whose name is familiar to the readers of current pharmaceutical and chemical literature. These gentlemen are both apothecaries, and distinguished for their ability and their active participation in the scientific work of their profession.

Mr. Kraemer, after graduating from Girard College, Philadelphia, entered the drug store of Dr. C. B. Lowe, of that city, who was Prof. Maisch's assistant in the Philadelphia College of Pharmacy. He served an apprenticeship in pharmacy extending over five years, and, when he graduated at the college just named, he was awarded the Lee prize and the Maisch Microscope prize. For two years he was assistant to Prof. Sadtler, University of Pennsylvania. Then he was called to the New York College of Pharmacy to teach botany, materia medica, and pharmacognosy, but he resigned his position after

one year to devote himself to an extended course of study at the Columbia College, giving special attention to botany and chemistry, with the fixed purpose of thoroughly preparing himself to make pharmacognosy his life work. In 1892 he was elected Reporter on Progress of Pharmacy of the American Pharmaceutical Association, which position he still occupies with distinguished ability and unselfish zeal. Desiring to pursue further studies in German universities before he enters upon his duties in the School of Pharmacy of Northwestern University, he has been granted leave of absence for one year for that purpose.

Mr. Nagelvoort was born at Amsterdam, Holland. He enjoyed the great advantages of receiving his early education at the hands of private tutors. Then he became apprenticed to an apothecary who was his father's neighbor and friend, and has continued, since that time, faithful to his love of the sciences upon which true pharmacy rests. At seventeen he entered the University of Amsterdam as a student of pharmacy, and graduated upon the completion of the three years' course there prescribed. The compensation received by dispensing pharmacists in Holland being rather meagre, Mr. Nagelvoort accepted an appointment to the position of military apothecary, and in that capacity served for many years in Europe and in India. While in the service of his government he enjoyed unusual facilities for scientific work and study. Then he came to this country, and for some years was a pioneer farmer in Nebraska. In the meantime, he continued sedulously to cultivate his scientific studies. In 1887 he offered his services to Messrs. Parke, Davis & Co. as an analytical chemist, and has been busily engaged since that time in the qualitative and quantitative examination of drugs, chemicals, and pharmaceutical preparations. In an analytical laboratory where every convenience and the most approved apparatus was to be had for the asking, and with a reference library such as few pharmaceutical schools in this country possess, Mr. Nagelvoort was daily accumulating a practical experience in pharmaceutical analysis, assaying, and testing, such as could hardly be acquired elsewhere, until he must now be recognized as one of the foremost experts in this special field of work. His contributions to current chemical and pharmaceutical literature are numerous and valuable. Of his translation of Flückiger's well-known work on the "Reactions" of organic compounds, Prof. Flückiger himself said: "I fully acknowledge how zealously and intelligently you not only translated, but, in many respects, improved the 'Reactions.'"

Prof. Nagelvoort enters upon his duties at the School of Pharmacy of Northwestern University about the first day of next August, to complete the details of the equipment of the special laboratory assigned to his charge, so as to be thoroughly ready to begin the courses of instruction on the first of October. His entire time will be devoted to the special chemical and pharmaceutical laboratory courses included in the second year's curriculum for the degree of Pharmaceutical Chemist, the most important part of which is pharmaceutical assaying and related analytical work, such as the pharmacists and the sanitary public analysts of the future must be prepared to perform.

The School of Pharmacy of Northwestern University, Chicago, has heretofore required "practical experience in drug stores" for the degree of graduate in pharmacy. It has now abolished this requirement on the ground that it cannot assume the responsibility for any training its students may have received outside of the school.

Pharmaceutical Examinations.

PRELIMINARY.

The preliminary Board of Examiners of the Pharmaceutical Association of the Province of Quebec held their quarterly examinations in Montreal and Quebec on Thursday, April 5th, for the examination of candidates desiring to enter the study of pharmacy. Thirty-one candidates presented themselves in Montreal and three in Quebec. Of these the following passed, and are entitled to be registered as certified apprentices, their names being given in the order of merit, namely: James A. Gillespie, Joseph Victor Murray, Hercule Guerin, Henry St. George, F. W. Kneen, S. A. Lamoureaux, Joseph Pigeon, W. F. Shea, Geo. A. Ricard, Paul Bergeron, A. J. Aubry, A. Bachand, Romeo Cassgrain, and A. Lauzon. Mr. A. Christie passed upon all subjects but geography. The subjects examined upon were, English, French, Latin, arithmetic, geography, and history. The examiners were Professors A. Leblond de Brumath and Isaac Gammell, Mr. A. LaRue, of Quebec, acting as supervisor for that city and district. The next examination will be held July 4th. Candidates must send in their applications at least ten days before the date of examination.

SEMI-ANNUAL.

The semi-annual examinations of the Pharmaceutical Association of the Province of Quebec commenced on Tuesday, April 16th, and closed Friday night, April 19th. Twenty-three candidates for the major and thirty-two for the minor examination enrolled their names for these examinations. Of these three defaulted, and of the remaining candidates the following passed, and are entitled to be registered as licentiates of pharmacy and certified clerks respectively, and are here named in order of merit, namely: As licentiates of pharmacy—D. J. McManamy, A. M. McMillan, James H. Goulden, Phillipe Lupien, W. J. Furse, J. H. E. Brodeur, Frank L. Woolley. As certified clerks—James A. Gillespie, S. Gilbert, Herbert H. Lyons, A. Goyette, Medard Langlois, Joseph Routhier, and J. A. A. Drouin. The examinations were both written and oral, the candidates being examined on materia medica, toxicology, chemistry, pharmacy, botany, practical dispensing, reading of prescriptions, and weights and measures. The examiners were Messrs. S. Lachance, A. E. DuBerger, R. W. Williams, W. H. Chapman, and J. R. Parkin. The next examination will take place in the city of Quebec about the middle of October.

A Polyglot Apothecary.

On the sign board of a drug store on Salem street, Boston, and on the back of the prescription blanks furnished by the proprietor, he states that no less than twelve languages are spoken in his shop, namely, English, French, German, Italian, Greek, Turkish, Spanish, Russian, Hebrew, Hungarian, Roumanian, and Portuguese. That an apothecary should find it necessary to advertise his ability to speak English in Boston is a curious indication of the way in which a foreign population has monopolized certain districts in the city. The changes which have taken place in the character of the population of the North End are shown by the fact that this drug store is within a stone's throw of the Cushman School, which stands on the site of Charlotte Cushman's birthplace, on Parmenter street. . . . Mr. Kronberger, the proprietor, is, we believe, a Turk (from Turkey), and a handsome Tufts soda fountain graces his store, and soda as well as prescription can be furnished in any language.—*Boston Medical and Surgical Journal.*

The Action of Diastase on Cold Starch Paste.

By H. T. Brown, F.R.S., and G. H. Morris, Ph.D.

In a paper by Brown and Heron (*Trans. Chem. Soc.*, 1879, p. 627) it is mentioned that during the early stages of the action of diastase upon starch paste in the cold, the optical activity is lower than it should be on the assumption that only maltose and dextrin are present. After standing some hours, or on boiling, this discrepancy disappears, and the optical cupric-reducing powers show the same relationship that they do in conversions made at higher temperatures. An observation made by O'Sullivan and Thompson in an other direction suggested an explanation of these abnormal results, and in the present paper the authors show that the lower angle of rotation observed during the earlier stages is due to the maltose being liberated in the state of "half rotation," a condition which freshly-prepared solutions of pure maltose always show. When freshly dissolved the optical power of maltose bears the relation to that of a boiled or old solution of about 133° to 150°, and the authors show that this relationship holds good in the case of freshly-prepared products from cold starch paste.—*Proc. Chem. Soc.*—*Pharmaceutical Journal.*

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Emulsions.*

The emulsions are liquid preparations consisting of oily, fatty, resinous, or otherwise insoluble substances suspended in watery liquids by the intervention of gum, mucilage, or other viscid material called emulsifying agents. They may be divided into (1) natural and (2) artificial emulsions.

Natural Emulsions.—In natural emulsions are included all products of animal or vegetable origin, consisting of oily or resinous substances so combined with gum or albumen as to be readily miscible with water without separation.

Of animal products milk and egg yolk are the most typical emulsions, since their fat globules are so finely divided and so perfectly distributed in the watery liquid as to require considerable agitation to separate them from the albuminous envelope in order to obtain the fat. The operation of "churning" milk to produce butter is a good illustration of this, and is the reverse of the process of emulsification.

The milk-juice of many plants, consisting of oil and gum or albumen, is deposited in fruits and seeds upon evaporation of the water. The nuts, especially almonds, are rich in this mixture, which, upon trituration with water, is restored to its original form of milk-juice or emulsion. The official almond emulsion is a good example. Associated with resin, and sometimes with ethereal oil, the milk-juice of many plants exudes and dries into semi-solid masses or tears. Examples of these we have in the gum-resins, ammoniac, and asafœtida, which furnish official emulsions by beating them in a mortar with water. The amount of gum contained in a gum-resin is not always sufficient to emulsify the other constituents, resin and ethereal oil, and it is then necessary to add gum artificially in order to produce complete emulsification.

These natural products are the most perfect emulsions, and to simulate them is the object of pharmacal art. A natural emulsion may be greatly diluted with water without causing separation of the oil. This is the best test to indicate that an emulsion is perfect.

Artificial Emulsions.—These are made by mixing the oil with a certain proportion of the emulsifying agent, adding water and trituration of the mixture in a mortar or agitation in a flask. There are various methods, but these are general rules:

The emulsification of the oil should be *complete* before the mixture is made up to the required measure. When alcoholic liquids are to be added, they should first be *diluted* as much as possible. Salts should be *dissolved* before being added. No heat should be employed, as the oil *separates* in an emulsion when heated. Emulsions should be *freshly* prepared, and be prepared in a *cold* place.

* Lecture from the Course of the National Institute of Pharmacy.

The most common emulsifying agents, in the order of their general value, are:

Powdered Gum Acacia.—With the powdered gum contained in a capacious flat-bottomed wedgewood mortar the oil is gradually incorporated. To this *one and a half times as much* water as of gum is added *at once*, and the mixture rapidly triturated with a rotary motion of the pestle. Soon the mixture becomes stiff and assumes a milk-white color, the pestle-motion producing a characteristic "crackling" sound when the emulsification is complete. This so-called "mother-emulsion" may now be diluted to the required measure, and other substances, flavors, etc., be added.

The *proportion* of gum required varies with different oils, an oil rich in gum, such as castor oil, requiring less gum than an oil poor in natural gum, as cod-liver oil. The following proportions hardly ever fail to produce complete emulsification: Oil, 4 parts; gum, 2 parts; water, 3 parts. Whenever a lesser proportion of gum is used, water must be decreased in proportion, viz.: One and a half times as much water as of gum employed. The ethereal or volatile oils require a much larger proportion of gum than the fixed oils.

Powdered Tragacanth.—This may be used in the same way, or in the form of mucilage, but it does not produce as permanent emulsions as does gum acacia.

Mucilages of Acacia or of Irish Moss (N.F.).—These are not as satisfactory as powdered gum; while they produce good emulsions, the division of the oil-globules is not as thorough as in the preceding; emulsification being incomplete, the mixture more rapidly separates into a heavier, watery liquid and a lighter, thick gelatinous emulsion, which requires thorough mixing before use.

Extract of Malt.—Extract of malt is an excellent emulsifying agent, when its use is admissible. The oil should be added to the malt extract contained in a capacious mortar and incorporated in small quantities at the time. A good article will emulsify an equal volume of cod-liver oil.

Condensed Milk and Egg-yolk.—These produce the most perfect emulsions and also the most palatable, but they rapidly ferment and spoil.

Glycerin and sugar added to emulsions for the purpose of preservation and palatability induce separation, and their use is not advisable.

Emulsification by "intervention" is the best and only reliable method to be employed with ethereal oils and all substances of themselves not emulsifiable. It is illustrated in the official chloroform emulsion. Oil of turpentine, for example, is emulsified by dissolving the turpentine oil in twice its volume of a bland fixed oil (almond oil), incorporating an equal weight of powdered acacia, adding water and proceeding as with an ordinary emulsion.

Pancreatin.—Pancreatin emulsionizes fats in preparing them for digestion, but it does not produce a permanent emulsion when used artificially. While, therefore, not a reliable emulsifying agent, it aids the assimilation of oils, and its addition to emulsions is sometimes therapeutically desirable. As it is only active in alkaline media, the emulsion should be prepared with a little sodium bicarbonate.

The addition of alkalies to emulsions should be avoided. Soaps are not emulsions; neither is the use of soap-bark to be recommended.—*Western Druggist.*

Chemistry for the Pharmacist.

By Wm. B. Thompson.

There are many reasons why pharmacists, who seek avenues for the application of scientific knowledge, should make especial study of the chemistry of agriculture and the chemistry of soils. Soil analysis is wholly within the possibility of scientific investigation. In the growth of plants and trees, soil loses nothing appreciable of its ponderous material. The elementary substances which enter into it are exhausted by absorption and the processes of vegetable growth. Nature has, it is true, her own occult method of supplying these, but art is a most valuable factor in supplementing or aiding the operations of natural causes. Science has done much, and there is yet much to be done, and agriculture much needs the principles and theories of science applied to its practice. Themes for study are to be sought in determining the action of manures and other animal and mineral fertilizers—the terms or periods necessary for the proper recuperation in cleared and open lands, where the chemical elements are only to be derived from the air, artificial treatment not being feasible; the character of the subsoil as it affects top soil; the action of infiltration and absorption; the upward and downward movements of moisture. In cattle manures the important office of the saturating urines, which, by a species of fermentation, gradually develop the ammonias, these, in turn, combining with acids, and thus oxidation forms less volatile and more soluble salts. —*American Journal of Pharmacy.*

Should Doctors Dispense?

Under this heading a correspondent of the *Birmingham Daily Mail* says: "Such a monstrous state of things is not for a moment allowed on the continent, and why the English Government should allow a man the privilege of writing out death certificates, and yet at the same time sanction his dispensing the medicine for his patients, is beyond all conception. I would submit three important suggestions why doctors should not dispense, and these, I think, must appeal to any intelligent person as reasonable: (1) Their

right to give certificates of death and dispense medicine at the same time. (2) Their insufficient knowledge of dispensing; the knowledge of pharmacy and practical dispensing required for their examinations not being a tenth part of that required by the Pharmaceutical Board of Examiners from their candidates. (3) Their liability to substitute cheaper medicines than those which would be of greatest value to the patient in order that their drug account may be kept down. Now, these are not fanciful ideas, but bare facts, which my own impartial experience indicates, and of which I have constantly seen the result. Of course, the patient is the sufferer, and I, for one, always take great care that my medicine is never dispensed in the slobbery manner carried out in so many of our doctor's surgeries."

Rhubarb.

The use of this root in medicine dates from earliest times. It is mentioned in a Chinese herbal, believed to date from 2700 B.C. However, that may be, from very early years the superiority of the Chinese rhubarb was acknowledged.

In the fourteenth century the root appears to have found its way into Europe by way of the Indies and the Red Sea, and thus became known as Turkey rhubarb. Afterwards, when China permitted Russia to trade on her frontiers, Chinese rhubarb reached Europe by way of Moscow, and in 1704 the trade became a monopoly of the Russian Government, in consequence of which the term Russian, or crown, rhubarb came to be applied to it, and the chief depôt was Kiachta, where it was rigorously examined and all inferior qualities rejected, to such an extent that the quantity rapidly dwindled, and after some years Russian rhubarb ceased to be an article of European commerce. The great expense of carrying the root across the continent of Asia, and the difficulty of keeping it from the attacks of insects, caused it to become one of the most costly of drugs, for in an old price list, dated 1657, it is there quoted at 16s. per pound.

There are, however, several species of rhubarb, the roots of all of which possess medicinal properties. The *palmatum* is that which yields the article of commerce. This latter, though a native of Bucharia, grows spontaneously in the Mongolian empire, on the confines of China. In all, there are thirteen different kinds, all growing in the cold parts of the world, such as on the Altai Mountains in Siberia, Thibet, North China, and on the great Himalayan range. The imports of this country of Chinese and Turkey rhubarb differ considerably in quality. Most of it is brought from the Chinese town of Sini, or Selim, by the Bucharians. It grows on the neighboring chain of mountains, which stretches to the lake Kokonor, near the source of the river Chorico. A very good kind, however, comes from the very heart of Thibet, exclusively from the wild plants in the high mountains of Western Sze-chuen, between the sources of the Hoang-ho and the rivers Keang, and comes into trade under the name of Shen-ze rhubarb; and it is this kind that the Chinese esteem as being the best, that coming from Kansu being most prized of all.

Sze-chuen rhubarb has a rougher surface and not much flavor, and only fetches half the price. In the province of Kansu the flora is rich and varied, the climate being exceedingly damp, especially in summer, part of autumn, and spring; and it is this moisture, and consequent richness of soil, which make the conditions exceedingly favorable to the development of plant life.

But the most noted is the medicinal rhubarb, which, as a plant, is remarkable. Little or nothing appears to be done with the other parts of the shrub, save the root, which is cylindrical, having a number of slender offsets, the length and number of which depend upon the age of the plant. When full-grown the root is about twelve inches long, and the same in thickness; its exterior covering is a brown, rough rind, which is cut off when dry. The root is considered fit for medicinal purposes in spring and autumn, and that when the plant is in flower, it is said to become porous. The Tangutans and Chinese dig it up in September and October. The plant grows at an elevation of about 10,000 feet above sea level, very rarely above that limit, mostly preferring the ravines with a rich, loamy soil and a north aspect. After it has been dug up the root is cleared from the earth, cut into pieces, strung with the bark on strings, and exposed to dry under cover for twelve months, when it is again cleaned and prepared for exportation.

In Bhutan the root is hung up in a drying room, in which a moderate heat is maintained. The effect produced by these two drying processes is very different; when dried by artificial heat the exterior of the pieces becomes hardened before the interior has entirely lost its moisture, and, consequently, the pieces decay in the centre, although the surface may show no change. These are known as kiln-dried and sun-dried. In consequence of this practice at Kiachta, on the Russian frontier, it is received by an apothecary for examination; the bad is burnt, and the good is freed from its bark, woody parts, and all impurity in the most careful manner, and where necessary a hole is bored in the centre as a further test of its quality. It is then sent to Moscow and St. Petersburgh, where it undergoes a further examination.

This Russian rhubarb is considered of very fine quality, and may be known by the size of the hole bored, which is large enough to admit the end of the little finger, by its surface having been sliced off, and by its structure resembling that of East Indian rhubarb, which is of smaller size, dark color, and the holes of a singular shape (often filled with stout string), by the outer surface being marked with white markings, and by the transverse surface showing a number of star-like marks, but no cortical layers. The very best root occurs in moderate-size pieces of a yellowish color externally, more or less marked with whitish veins, the surface being convex and smooth. Internally, it is compact, marbled with reddish-brown and white mixed with iron gray. Inferior qualities are shrunken on the surface, and of a brown tint, showing traces of the darker bark, and, when broken, are sometimes decayed in the centre. Good rhubarb should form a powder of a fine bright yellow, having the peculiar nauseous aromatic smell, and a bitter and astringent taste, and when chewed feeling gritty under the teeth, speedily coloring the saliva, and not mucilaginous.

A kind of rhubarb has been cultivated in England, most of which, however, is exported. It was first attempted at Banbury, in Oxfordshire, in 1777, by an apothecary named Hayward, the plants having been raised from seed sent from Russia, and with so great a success that Hayward received the Society of Arts' silver medal in 1789, and the gold medal in 1794. The cultivation was attempted in other parts of the country, and in the neighborhood of Edinburgh much has been produced, but in no case have they yielded such medicinal strength as that from the far East.

France commenced the cultivation some few years ago; but with the exception of a small quantity grown at Avignon, the culture has almost entirely ceased.

The prejudice which always existed, and still continues, for the foreign article has militated against any attempt to produce it nearer home, and the demand for such has scarcely proved an encouragement for further cultivation. It is on record that the culture of *Rheum compactum* was begun in Moravia in the early years of the present century by Prikyl, an apothecary, of Austerlitz, and until a few years ago the root was largely exported to Lyons and Milan, where it was used for dyeing silk. As a medicine, five parts are stated to be equal to four of Chinese rhubarb. The root is also grown at Auspitz, in Moravia, and at Ilmitz, Kremnitz, and Frauenkirchen, in Hungary. *R. emodi* is cultivated for the same purpose in Silesia. The rhubarb, used as a vegetable, consists of the leaf stalks of several hybrids. The petioles of *R. officinale* have also been proved to be edible, but this plant is chiefly grown on account of its ornamental foliage. The complete history of rhubarb is a most interesting one, and might be gone into at great length. It is remarkable that the first European who visited the rhubarb-yielding countries of China was the famous Venetian traveller, Marco Polo, who, speaking of the province of Tangut, says: "Et par toutes les montagnes de ces provinces se treuve le *reobarbe* en grant habondance. Et illec l'achatent les marchans et le portent par le monde."—*G.D., in British and Colonial Druggist.*

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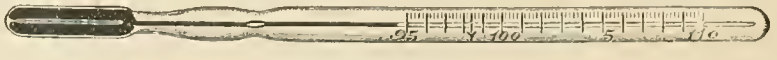

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The present wholesale drug house of J. Winer & Co. was established in the year 1830 in Hamilton, then a village of 1,000 inhabitants, by the late John Winer. From the first he did a limited jobbing trade, which was greatly enlarged after the fire that destroyed his property in 1845. Just recently, on the death of one of his oldest customers, the firm came into possession of several old invoices, one dated February 11th, 1846, in which prices are charged that would make modern jobbers' mouths water. The business, however, did not become exclusively wholesale till 1862, when the retail department was disposed of and the firm moved into part of the present premises. Since that time (apart from the retirement of the senior partner in 1884) there has been little change in the personnel of the firm, whose members now are Messrs. George Rutherford, John Mc Haffie, and Wm. C. Niblett.

Since they purchased the original building successive additions have been made as the business grew, till it comprised the present extensive premises, which cover the ground extending from King street, 300 feet in depth, to Prince's Square, with a total width of 40 feet throughout, an alleyway separating the front and rear warehouses. Last summer it was decided to remodel the King street building, and accordingly the two adjoining stores were thrown into one, a substantial modern front erected, and many improvements introduced, with the view of increasing the capacity and convenience of the warehouse.

There is in the five flats of the two buildings a floor space of nearly 50,000 feet (considerably over an acre), all of which is utilized to the fullest extent. The laboratory and rough workrooms are situated on the main street (Prince's Square) front; while the offices, showroom, and city delivery open on King street. A cut of the interior of these latter is given above, and they are so fitted up as to be not only commodious and convenient, but also handsome, and in this respect are said to be unexcelled (if equalled) by any other drug establishment in the Dominion.

The long experience of this firm as cash buyers in the primary markets, and their exceptional facilities for handling goods with cheapness and dispatch, have made them favorites with careful buyers in the territory they cover. They are not ambitious of a very widespread trade, soliciting orders by travellers only in Western Ontario, but they have old customers in all sections of the country who do not forget them. They also aim to confine their sales to the retail drug trade as far as practicable. They do not aspire to brilliance or novelty in their business methods, but continue to rely, as they have done through a long and moderately successful business career, on the old-fashioned, but not yet outworn, qualifications of intelligence, economy, and probity.

Interior of J. Winer & Co.'s Offices.

The Ointments of the New Pharmacopœia.

Mr. Peter Boa, in an address delivered before the North British branch of the Pharmaceutical Society, said: In his experience only about a third of the official ointments are commonly prescribed; and from inquiry he found that his experience was not exceptional. He proceeded to discuss the probable causes of this neglect of so many of the preparations, pointing out that *ung. acid carbolic.* contains the acid in crystals, because it is only partially soluble in the basis. Aconitine, atropine, and veratrine ointments are highly poisonous and dangerous, and have largely been replaced by preparations of cocaine and menthol. Calamine is inferior to oxide of zinc in ointment; creosote is efficiently and pleasantly replaced by carbolic acid; glycerine and subacetate of lead ointment is meant to be soothing, but any soothing effect which the lead may possess is neutralized by the irritating nature of a paraffin basis. Elemi, resin, savin, and turpentine ointments are relics of a style of practice now in disuse by the best practitioners. Spermaceti and simple ointments are not now so much in use as they have been, the benzoin in the former spoiling it for ophthalmic use; and the readiness with which the latter becomes rancid has brought it into disfavor. The author considers that the official bases are not quite satisfactory. Most of them become rancid, and the paraffins are not always bland, but *adeps lanæ* under certain conditions promise to be a good basis. He is not disposed to regard with favor one common basis. There might be a classification of certain ointments as regards strength and basis. Those which contain insoluble and not very potent substances might be of uniform strength, and made with a paraffin basis, while those with soluble active ingredients, like carbolic acid and eucalyptus, might be made alike in strength and fatty basis. If there were a basis in which the active ingredient is soluble, that basis should be chosen for it, unless objectionable in some other way. In all the official ointments, the ingredients of which are melted together, the directions are to stir till cold. The author has shown that in many of them this is unnecessary, and in some objectionable. Briefly, a stirred ointment is more liable to become rancid than one allowed to cool at rest. A basis of some non-fatty substance, which would wash off with water without soap, might be useful. Tragacanth, starch, dextrin, and gum acacia, either alone or together, might be employed. Some more compound ointments of the sort in use now should be introduced. The compound ointments at present official are among the most useless in the book. Bismuth, cocaine, and menthol ointments are now much used in practice, and he suggested their recognition.—*Chemist and Druggist.*

Let trade see you are discouraged, and you discourage trade.

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

MAY 15TH, 1895.

A Dominion Pharmaceutical Association.

We have on several occasions pointed out through these columns the desirability of the formation of an association in the interests of the pharmacists of this country, on lines outside of those now existent, and embracing all the provinces in one organization. In our issue for March we again spoke of this matter, and urged the importance of prompt action being taken in the matter. We are glad to learn that steps are being taken in this direction, and a circular letter has been forwarded to all pharmaceutical associations in the various provinces of the Dominion, asking their co-operation in the matter. The initiative has been taken by the Pharmaceutical Association of the Province of Quebec, the oldest pharmaceutical body in Canada, and in doing so they are endeavoring to carry out a similar proposition which was made by them in 1893, but which, through the apathy of some of the sister organizations, was allowed to drop. A committee, appointed by the council of the association for the purpose of drafting by-laws and a constitution for the guidance of such a body as that proposed, have presented their report, and the council have adopted it, and instructed copies to be forwarded to the various provincial associations for criticism and suggestions. It is to be hoped that the steps now taken will be the means of accomplishing the much-desired aim of the promoters, and that the pharmacists of Canada, both officially through their provincial associations, as well as individually, will do all that lies in their power to further the proposed measure.

The following is a copy of the circular mentioned :

To the Council of the Pharmaceutical Association of the Province of.....

GENTLEMEN,—At the annual meeting of the Pharmaceutical Association of the Province of Quebec, held in June, 1893, the question of the formation of a Dominion Pharmaceutical Association, similar to that existing in the United States, was very fully discussed, and in the following July a circular letter was sent to all the pharmaceutical bodies of the Dominion, asking their co-operation in the object contemplated. Some of the associations responded at once, but it was some time before this association received replies from all the provincial bodies, hence the delay in taking further steps to promulgate the formation of the new association. We may, however, say that, with the exception of one provincial association, all the others offered hearty co-operation. Some four months ago the council of this association appointed a committee to take up the matter, and this committee has drafted a constitution and by-laws which, in their opinion, would be suitable for an association such as was contemplated. This council, at its last meeting, approved of the draft of constitution and by-laws submitted, and instructed their secretary to forward to each provincial association a copy of said constitution, with the request that each association, through its council or president, should consider the draft and return to this association their early reply, with such comments or suggestions as they desire to make. The council of the Quebec association have undertaken to meet the preliminary disbursements in the formation of the new association, with the understanding that if it becomes organized each association shall bear their *pro rata* share of the expenses, which will include the expenses of the preliminary meeting. As the Quebec association has been the prime mover in this undertaking, they naturally suggest that the preliminary meeting for organization be held in Montreal. In the formation of this new association, it is not intended to interfere in any way with the rights of the various provincial associations as they now exist.

In accordance with my instructions, I now have much pleasure in forwarding you a copy of the proposed constitution and by-laws for the new pharmaceutical association, and shall be pleased to receive an early reply from your association, hoping that it will be favorable to an active co-operation on behalf of your association. Yours respectfully,

E. MUIR, Secretary.

Customs Decisions.

Amongst the recent decisions arrived at regarding the duty to be paid on articles not mentioned in the tariff, the following of interest to druggists are mentioned : Medicinal capsules, empty or filled, are 25 per cent. ; Fuller's earth (classed as a toilet preparation), 30 per cent.; pumice bricks, 20 per cent.; sheep dip, 20 per cent. ; spectacles and eyeglass frames, complete, 20 per cent. ; spectacles and eyeglass lenses, finished, 30 per cent.

The Extra-Pharmacopœia.

The publication of the eighth edition of the Extra-Pharmacopœia brings very forcibly to mind the many changes which are constantly taking place in the number and nature of preparations in use by the pharmacist and physician. Since the publication of the seventh edition, scarcely three years ago, the volume of matter which a work of this kind treats of has so increased as to necessitate the addition of over 100 pages. The present volume consists of 580 pages, and is an indispensable guide for the pharmacist who would keep himself thoroughly versed in medico-pharmaceutical literature. It is, in our opinion, the most complete and reliable help for everyday reference in the laboratory and dispensary that is published. H. K. Lewis, 136 Gower street, London, W.C., England, publisher.

An Advertising Story with a Moral.

A writer in one of the journals devoted to advertising recently told how he had entered a pharmacy to buy some shaving and toilet soaps and some brushes. He had never bought anything of the sort before (somebody had done it for him), and he knew nothing of the virtues or qualities of any of the various brands, but bought somebody's shaving soap, some other body's toilet soap, and somebody else's brushes, simply because he had become familiar with the various names from constantly seeing their advertisements in his favorite paper. He had never read one of the advertisements through, but his eye had become accustomed to the articles through thus seeing them. Do you suppose that he or the druggist sat down and wrote to the manufacturer that the sale was made through the latter's advertisement in that particular paper ? Not much. And yet there is a class of merchants who, when approached by an advertising solicitor, will answer, "Oh, I've tried papers of your class ; they are no good to me. I have never had a call for an article through an advertisement placed in them." How does he, or can he, know this statement to be true ? It is simply impossible. Of course, some journals are of more value to every advertiser than others, and this value depends on various circumstances, not alone on the mere number of copies issued. Every astute advertiser knows how to rate journals in this respect ; but no continued, well-constructed advertisement is ever lost. The mere sight of it from day to day, from week to week, or from month to month, educates every man, woman, and child to call for that article whenever he has occasion to buy. No advertisement, however, will make people buy what they do not need or want.—*National Druggist.*

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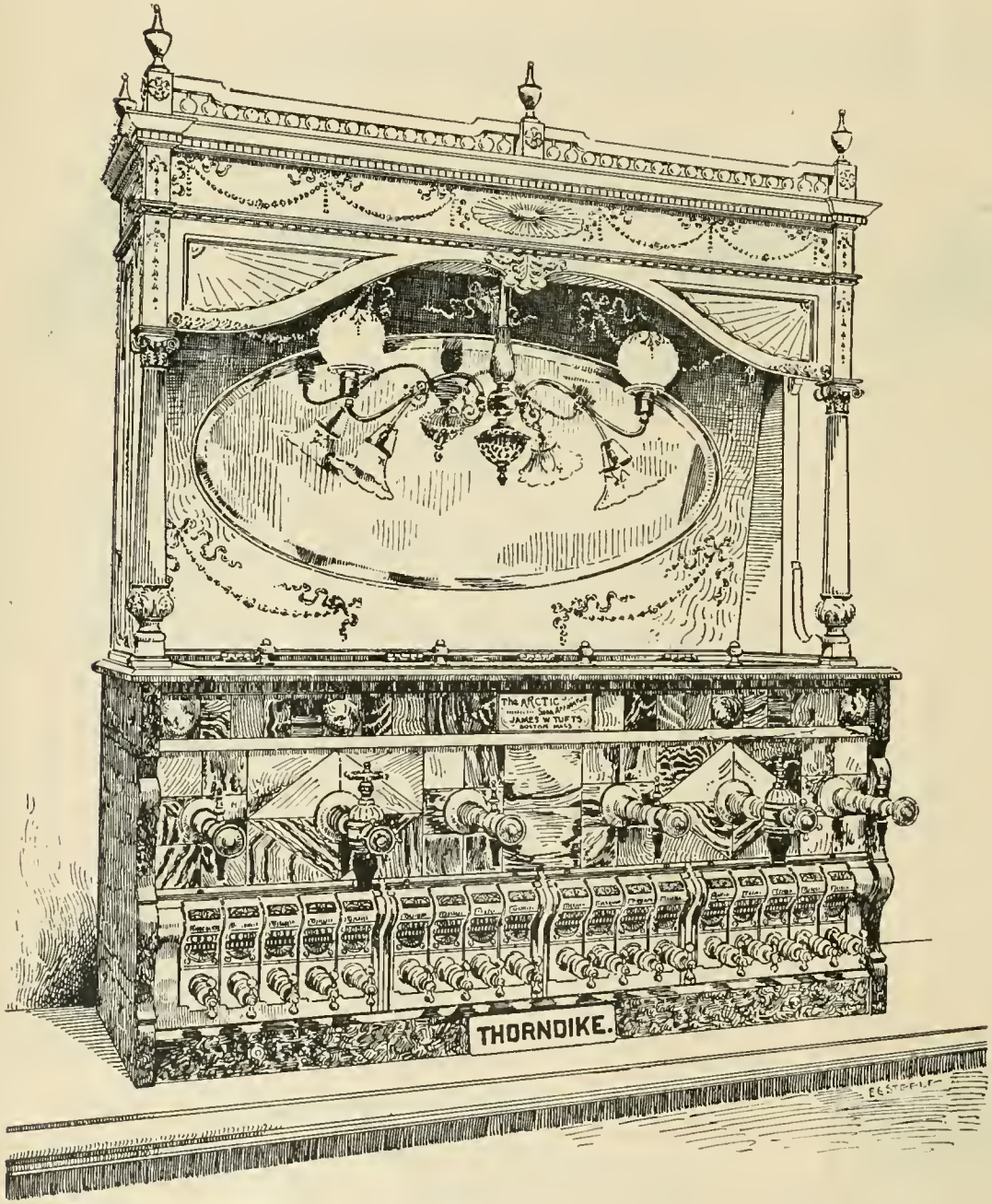

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The Chemistry of Photography.*

By J. R. Burn.

Photo chemistry is really the study of all those chemical changes which are brought about by light when it is absorbed by various substances, and its energy is expended in producing chemical decompositions; but I intend only to speak of it in its relations to the art of photography, and would more correctly have styled this paper with the longer title of "Photographic Chemistry."

The practical illustrations will be necessarily few, and limited to those which can be performed in gaslight, as some of the most interesting and instructive require a non-actinic light and considerable time to perform.

The chemistry of photography encroaches largely upon the domain of physics, perhaps more so than any other branch of chemistry, since nearly all the decompositions involved are at least initiated by the action of light.

The dictionary (Nuttall's) definition of photography is: "The art of fixing images of the *camera obscura* on plates of copper covered with a thin coating of silver." This definition takes us back to the days when photography was in its infancy, in the early part of the present century, since which time the term has come to mean a great deal more; but one point still holds good, and it is this, that all the surfaces employed for obtaining the image in the camera, almost without exception, are still dependent for their efficiency upon the susceptibility of silver salts to the action of light.

I will give but a short sketch of the history of photographic chemistry. Color photography was taken as a subject in a paper on "Recent Advances in Photography," by Mr. E. W. Hill, before the London Chemists' Assistants' Association, in November last, but I will refer to the chemistry of color photography, or, rather, orthochromatic photography, later on under orthochromatic plates.

History.—The action of silver nitrate in darkening the skin is reported as having been noticed as far back as the thirteenth century by Albertos Magnus. In the sixteenth century Fabricius mentioned the fact that horn silver, or native silver chloride, turned darker in color when removed from the mines, and the discoloration of silver compounds was noted by Glauber and Robert Boyle in the seventeenth century, but they do not appear to have attributed this change to the action of light. Schülze, a German physician, appears to have been the first to definitely prove that light and not heat, or action of the air alone, was the cause of the darkening, and he showed it experimentally by pouring silver dissolved in nitric acid upon chalk, and observing that the precipitate darkened upon the side exposed to light. It was not till the middle of last century that it was noticed by Professor Beccerues, of Turin, that precipitated silver chloride turned violet, then brownish violet, on exposing to light, and it is on a similar change in the chloride, bromide, and iodide of silver, that the principal photographic processes of the present time depend. Two or three simple experiments here will serve to indicate what occurs when the halogen silver salts are exposed to the action of light, and will make my subsequent remarks much clearer.

Experiments.—The first experiment is intended to show the change of color in silver chloride by exposure to light. I form a precipitate of silver chloride in two large test tubes by adding to a solution of silver nitrate some hydrochloric acid. Above each precipitate I suspend bibulous paper moistened with potassium iodide and starch paste, then expose one of the tubes to the light of an electric arc for a few minutes while the other is kept in the dark. It will be noticed that the precipitate has changed color, from white to violet, in the tube exposed to light; also that the paper above it turns blue, indicating that chlorine, or some chlorine-containing gas, has been liberated, while that retained in the dark remains apparently unchanged. This clearly shows that the AgCl has, to some extent, been reduced by the action of light.

Next I form another quantity of silver chloride, pour upon it strong nitric acid, and expose to the electric light (gaslight is not sufficiently actinic or chemically active to serve the purpose) as before, and it will be seen that the change still takes place, although nitric acid is one of the strongest oxidizing agents. I will refer to this later.

At this point I must explain what is meant by the terms "sensitizers" and "restrainers." Any substance which, by its presence and chemical or physical action, causes the reduction of the silver salt by light or a developer to take place more easily and rapidly is called a "sensitizer"; while any substance which, by its presence, retards or prevents the chemical decomposition of the silver or other salt acted upon is known as a "restrainer."

In illustration of restrainers, I have some silver nitrate solution as before, and add to it some gelatine solution, then a few drops of hydrochloric acid. It will be observed that the precipitate is much slower in forming, and this is because the gelatine, by giving viscosity to the solution, acts as a "physical restrainer," yet, at the same time, gelatine is used as a "chemical sensitizer," because it has the power, even when "set," of absorbing the halogen-chlorine, bromine, and iodine.

Collodin is also a "physical restrainer," but it differs from gelatine in that it is not a "chemical sensitizer," *i.e.*, it will not absorb or combine with the halogen.

Ferrous sulphate is used as a developer for collodion wet plates, and acts by reducing the silver nitrate to the metallic state, while the ferrous salt is raised to the ferric condition according to this equation:

$$6FeSO_4 + 6AgNO_3 = 2Fe_2(SO_4)_3 + Fe_2(NO_3)_6 + 3Ag_2.$$

On performing this experiment in test tubes it is seen that the reaction takes place at once, and it is too rapid to be of service in development, but on doing this again in the presence of a little acetic acid it is evident that the reaction takes place much more slowly. It is thus that acetic acid acts as a "chemical restrainer" in development.

After this digression, I will now refer briefly to the more important processes in the order of their discovery which have led up to our present state of knowledge in the art of photography. The first process of copying pictures painted on glass, or profiles cast by a strong light, was devised by Thomas Wedgewood and Humphry Davy in the year 1802, and was performed by placing the transparent picture or the opaque profile in front of paper or leather impregnated with solution of silver nitrate or coated with silver chloride, and exposing to light. A darkened image was produced, but they had no means of fixing this image, *i.e.*, preventing a further darkening of the silver salt by what we call a fixing agent, and consequently the result was not permanent. This is, of course, quite similar to our methods of printing in the printing frame. An imperfect fixing agent was supplied by Fox Talbot, in 1839, who employed a solution of common salt, which acted by removing the greater portion of the silver chloride which had not been acted upon by light, but not all, therefore the resulting picture was not permanent. In the same year Sir John Herschell showed how all the unaltered silver salt might be dissolved by sodium thiosulphate, or "hypo," which is the fixing agent still most generally employed. The prints were called Talbotypes, after Fox Talbot. Joseph Niesse, in 1824, was the first to be successful in fixing a photographic image obtained by means of a lens, and he did this by coating a metallic plate with bitumen, a pitch-like substance, and exposing in a camera for *some hours*. His developer was a rather expensive one, viz., oil of lavender, which dissolved the portions of bitumen unaffected by light, and left on the plate a picture of insoluble bitumen. Niesse discovered this method after working on various substances for a period of fifteen years. Niesse died in 1833, and in 1839 Daguerre, who worked along with Niesse a few years before he died, made known what is called a Daguerreotype process. In this process a highly polished plate of silver, or silvered copper, is exposed to the vapors of iodine and bromine alternately, forming a film of silver bromo-iodide, the sensitiveness being judged by the color of the surface. The method of sensitizing was improved until a Daguerreotype plate was prepared, which is as rapid as a wet collodion plate, but the image can only be seen at a certain angle.

The Calotype process, which comes next, was patented by Fox Talbot in 1841, and consists in having a mixture of bromide and iodide of silver on paper

*Read at a meeting of the Liverpool Pharmaceutical Students' Society.

sensitized with silver nitrate and gallic acid, and developed with these latter, and fixed with sodium thiosulphate. Calotype papers subsequently received a better surface by being coated with albumen and gelatine, and after being waxed were used as negatives from which to obtain positive copies to any number by printing in the sunlight. There were many drawbacks to the Calotype process, such as lack of uniformity and transparency, owing to the grain of the paper and its partial opacity to light. Experimenters sought to remove these, and in consequence glass plates were successfully introduced in place of paper as a support for the film in the year 1847, when the Niepceotype process was brought out by Niepce de St. Victor. This consisted in coating a glass surface with a mixture of albumen and potassium iodide, and, when dry, immersing it in a solution of silver nitrate. Sensitive silver iodide was thus formed on a substratum of albumen, and it was found that these plates could be used dry, the albumen acting like gelatine, as an absorbent of iodine, *i.e.*, as a sensitizer. Four years later, in 1851 (scarcely forty-five years ago), the "collodion wet-plate process" was made known in a practicable form by Scott Archer, and this is the process which was practically used by photographers to the exclusion of all others until about fifteen years ago, when the introduction of the "gelatine dry plate," in an improved form, rapidly superseded the collodion wet plate on glass in everyday use, until the latter has now become almost obsolete, the wet collodion film being now little used except by itinerant photographers, who use it for taking positive pictures direct on the enamelled surface of ferrotype tin.

The necessity for preparing the wet collodion plate at the time of using was found especially inconvenient in outdoor and away-from-home photography, consequently efforts were made to prepare plates which could be kept for some time both before and after exposure. The *gelatine* dry plate of to-day was not the first which could be so used, for the collodion wet plate was soon followed by the collodion dry plate, which was first prepared by Taupenot in 1853, but was not brought out in a really practical form until 1861, when Colonel Russell, who experimented much in this direction, introduced a dry collodion plate which would keep, and was fairly free from defects, but not so quick as the wet plate. This collodion dry plate was very similar in mode of preparation to the wet collodion, but I will explain the essential difference later on.

In 1864, the first dry plate coated with an "emulsion" was introduced by Bolton and Sayce, the film consisting of silver bromide emulsified in "collodion"; but it was not until 1871 that the practical details of the *gelatine emulsion* dry plate process were made known by Dr. R. L. Maddox, although the use of gelatine as a vehicle was suggested by Gaudin as far back as 1853.

This completes a short account of the progress of photographic processes up to the present time, and we will now consider, first of all, the

Chemistry of the Wet Collodion Plate.—This kind of plate was almost universally used fifteen or twenty years ago. The preparation of the plate on which the image is to be obtained, of which I have here a specimen to show you, may be described as follows: A sheet of glass cut to size is made chemically clean. A collodion is then prepared, of which I have here a sample, by dissolving pyroxylin in a mixture of alcohol and ether (it is very similar to that of the Pharmacopœia), and in this collodion some soluble iodide, or generally a mixture of bromide and iodide, is dissolved. The iodides and bromides of Zn., K, NH_3 and Cd. have all been used; but the ammonium and cadmium salts are chiefly employed. When the soluble salts are added to the collodion, along with a little free iodine as a rule, it is said to be "salted." The "salted collodion" is to be dexterously poured over the glass plate, on which it very quickly sets, on evaporation of the ether and spirit, leaving a fine transparent film of salted pyroxylin. The plate is then sensitized by immersing it in a solution of silver nitrate containing a little iodide of potassium. The strength and purity of this silver bath, as it is called, is of great importance, also that it be neutral or only slightly acid. The foregoing operation of sensitizing with silver nitrate must, of course, be performed in the dark or in the ruby light. The plate is placed in the camera whilst wet, and exposed and developed before it dries. An acid developer must be used for a wet plate, since an alkaline developer would immediately cause the precipitation of the silver nitrate as silver oxide. Two typical examples of the developers used are: (1) Pyrogallic acid, gr. i.; glacial acetic acid, m. 20; alcohol, q.s., and water 1 ounce. (2) Ferrous sulphate, 20 grs.; glacial acetic acid, 10 minims; gelatine, gr. i.; alcohol, q.s., and water 1 ounce. The chemical reactions are as follows: On immersion of the plate in the silver nitrate solution, the soluble, iodides, and bromides in the film form silver iodide and bromide, thus:

$$NH_4I + AgNO_3 = AgI + NH_4NO_3.$$
$$CdBr_2 + 2AgNO_3 = 2AgBr + Cd(NO_3)_2.$$

The sensitive silver salts are thus deposited evenly over the surface of the film, and are superimposed by a layer of silver nitrate solution. On exposing the moist plate in the camera a very small proportion of the iodide and bromide of silver is reduced by the action of the light, which is reflected to it from the object through the lens, and with proper exposure the amount of reduction is proportionate to the intensity and color of the light. I might remark here what will be well known by most of you, that the silver salts are more easily reduced by the violet, blue, and green, or more refrangible rays, than by the orange and red rays, but it will be seen, when speaking of orthochromatic plates, how objects of the latter colors may be photographed quite as faithfully by indirect methods. The change which takes place when the image is transmitted by the lens to the plate has long been represented by this equation:

$2AgBr = AgBr, + Br$ or $2AgI = Ag_2I + I$.

It is true that Br and I are liberated just as chlorine was seen to be in the case of silver chloride, but there are many arguments which go to show that the reduction product is not simply a subbromide or subiodide, etc., as, for instance, the fact that the change takes place under strong nitric acid, as we saw a little while ago, which is a powerful oxidizing agent, and is known to effectually prevent all similar reactions with other analogous metals, such as copper and mercury. The subject was investigated by Dr. W. R. Hodgkinson some few years ago (about 1889), and he states that the reduction product is an oxychloride, bromide, etc., of the probable formula

AgAgCl.
/
O or $Ag_2O,2AgCl$.
\
AgAgC

This view is supported by Professor Meldola, and, as it allows for the liberation of halogen (which is replaced by oxygen), it seems to be a more logical view of the change which occurs. Now it is found that this change takes place much more rapidly in the presence of some substance which absorbs the bromine and iodine as soon as it is formed, and in this case the $AgNO_3$ is the sensitizer which thus forms fresh iodide and bromide of silver, and gives off nitric acid, possibly according to this equation:

$$6I + AgNO_3 + 3H_2O = 5AgI + AgIO_3 + 6HNO_3,$$

although the $AgIO_3$ may not be formed, but the small amount of oxygen may be liberated. Hence the necessity of having the silver nitrate solution upon the surface during exposure, for the collodion, or, rather, pyroxylin film, has no absorbing power, and takes no part in the chemical reaction.

To follow the changes on developing, we will take the iron developer previously given, and observe what occurs. If the ferrous sulphate solution alone were applied to the plate, the reaction previously explained and shown would take place—$6FeSO_4 + 6AgNO_3 = 2Fe_2(SO_4)_3 + Fe_2(NO_3)_6 + 3Ag_2$, and the metallic silver would be deposited all over the plate. But the acetic acid (also the gelatine, which, by the way, is not altogether necessary) is here to prevent this. It reacts with the silver nitrate, and forms acetate of silver, which is not so readily decomposed by the ferrous sulphate, although the eventual precipitate is of a more suitable kind for forming the image, and thus the precipitation of the silver is retarded according to the quantity of acetic acid present. Other acids could be used in this way, but acetic is found

to be most suitable in every way. The acetic acid thus acts as a "chemical restrainer"; gelatine acts as a physical restrainer by giving greater viscosity to the developer. The alcohol is added to overcome any repellent action offered to the water by the alcohol-ether prepared film, and thus enables the developer to flow evenly over the surface of the film. When the reduction of the silver nitrate is thus retarded, it is found that the portions of haloid silver salt on the film have an attraction for the precipitated silver in proportion to the extent to which they have been previously reduced by the action of light, so that the particles of silver are gradually built up upon these portions. It is extremely interesting and important to note here that in this wet plate process the image is not formed from the film, or even one might say from a portion of the film, but that it is built up on the surface of the film from the silver which is contained in the solutions. After intensifying with additional developer, if necessary, the plate must be fixed, *i.e.*, the unaltered silver haloid salt must be dissolved off the surface of the film, that it may be no longer sensitive to light. For this purpose a strong solution of sodium thiosulphate is used (3 or 4 ozs. to the pint), or a much weaker solution of potassium cyanide (25 grains to the ounce). The reactions in fixing, with equations, respectively, are according to these equations :

$$AgI + 2KCN = AgK(CN)_2 + KI$$
$$AgI + Na_2S_2O_3 = AgNa(S_2O_3) + NaI.$$

The potassium cyanide is preferred as a fixing agent for collodion plates, because it fixes rapidly, and is more easily removed from the surface than hypo by subsequent washing. On looking up the chemistry of the fixing process by sodium thiosulphate, I find that Professor Meldola states the correct formula to be $Ag_2Na_4(S_2O_3)_3$, while Capt. Abney states just the reverse in his "Instruction in Photography," and other books on chemistry do not mention that two double salts can be formed, but I am inclined to think that the formula $AgNaS_2O_3$ is that of the highly soluble salt. The formation of the soluble double salt in a strong fixing solution, and of the insoluble in a weak solution, can easily be shown in test tubes. It is certain that the yellow stains which sometimes occur on prints during toning are formed by this insoluble thiosulphate, owing to a minute trace of hypo getting into the toning bath from the fingers or otherwise. This can also, I find, be easily demonstrated by a simple experiment on ordinary paper.

I will now hastily describe the dry collodion plate, which is never used now, but is the first plate which was prepared to be used when dry. A thin coating of albumen or rubber solution of gelatine is painted on the plate to make the film grip, then a salted collodion is prepared in the same way as for the wet collodion plate, and is flowed over the glass plate, which is then immersed in the silver nitrate solution to sensitize, but the superfluous nitrate solution is afterwards washed away, because, if allowed to dry on, it would crystallize and spoil the film of silver haloid. An organic preservative is then coated over the dried surface, and allowed to set. This preservative prevents the haloid salts from becoming perfectly dry, and, consequently, less sensitive, and protects them from the action of the air. But its chief use is as a sensitizer (or absorbent of the bromine and iodine evolved) in place of the silver nitrate solution, and in this way it acts like gelatine. Many curious substances have been successfully employed as preservatives, among which may be mentioned tea, albumen, coffee, stale beer, and a solution of gallic acid with gum ; the latter being, perhaps, the best or equal to any. The developer used is similar to that employed for wet plates, a little silver nitrate solution being added to give density by the further precipitation of silver, and fixing is carried out with cyanide or hypo as usual.

Chemistry of the Collodion Emulsion Plate.—This plate has also been discarded of late years for the more rapid gelatine emulsion plates, but, as its mode of preparation is very similar to that of the gelatine plate, it will be worth while enumerating the chief points in the process.

The silver bromide, or other sensitive haloid salt, is suspended in a very finely-divided state in the collodion, but, of course, water cannot be used alone as a solvent of the reacting salts, because it would precipitate the pyroxylin of the collodion from its solution. The general method of preparing the plate is to dissolve bromide of cadmium, or zinc, or ammonium in alcohol, add to this a few drops of nitric acid, and add the solution to collodion. This constitutes the "salted collodion." A solution of silver nitrate in alcohol is then prepared and very gradually added to the salted collodion, with constant stirring or shaking, the amount of silver nitrate added being sufficient to leave an excess after all the zinc or cadmium bromide has been acted upon. The collodion emulsion of silver bromide thus formed should have a deep orange or ruby tint by transmitted light. These operations need not be performed in the dark room. The reasons why the emulsion is not appreciably sensitive up to this point are because the soluble salts present act as "restrainers"; and, secondly, because the particles of silver haloid formed are so minutely divided. The latter reason I will explain more fully when speaking of the gelatine emulsion. After allowing the emulsion to stand for some hours to "ripen," as it is called, the alcohol and ether are evaporated and the solid mass is washed in several changes of water to get rid of all soluble salts. The mass is then dried, redissolved and flowed over the glass plates. In this film the sensitizer is a very minute quantity of silver nitrate, which is retained by the particles of silver bromide. Note here the difference between the collodion wet plate and the collodion emulsion plate on development. In the wet plate you will remember that the image was formed by silver precipitated from the superincumbent solution of silver nitrate ; but here the image is formed from the silver bromide in the film, and the same statement holds good for the gelatine emulsion plates which we now use. The minute quantity of silver bromide, reduced on the surface by the action of light, is further reduced to metallic silver by the developer, which may be an alkaline pyrogallic solution, because in this case no silver nitrate is present in solution. This "nascent" or active silver immediately reduces the bromide below it, and this partially reduced salt, in turn, is further reduced to the metallic state by the developer. Thus an image of metallic silver is embedded in the film.

Chemistry of the Gelatine Emulsion Plate.—The gelatine emulsion is made by methods very similar to the foregoing, gelatine taking the place of collodion, water that of alcohol and ether as the solvent, and potassium or ammonium bromide and iodides replacing the zinc or cadmium salts since water is the solvent.

Method of Preparing the Gelatine Emulsion.—There are many formulas for gelatine emulsions, and perhaps as many different methods of preparing them ; but the following rough description will give a fair idea of the general *modus operandi*. A small portion of the gelatine is dissolved in water and mixed with silver nitrate solution ; into this a solution of bromide, bromide and iodide, or chlorate of potassium or ammonium in water is carefully poured, with constant stirring or shaking; the remainder of the gelatine solution is then added, and the emulsion is heated for some stated time, or "cooked," as it is called, or else a little ammonia solution is added. This cooking or addition of ammonia is intended to "ripen" the emulsion, *i.e.*, to give it the maximum or the desired sensitiveness to light. The solution is then cooled after a certain time to the solid state, when it is freed from soluble nitrates, bromides, etc., by repeatedly squeezing it through coarse cloth under water, after which it is remelted and coated over glass plates or over films in the usual way. In this emulsion the state of physical aggregation of the silver bromide molecules is very fine, so that the particles come into intimate contact with the gelatine, which, as previously stated, is an absorbent of the halogen. For a good, sensitive emulsion it is found necessary to have an excess of soluble bromide present on mixing. Excess of silver nitrate would cause the formation of a compound of silver and gelatine, not much affected by light, but easily decomposed by the developer, producing "fog," *i.e.*, a film of silver over the plate. The excess of bromide with heat, or the ammonia added in the "cold process," causes a small quantity of the silver bromide so dissolve, and this is reprecipitated on the undissolved particles, thus causing them to grow in size. Up to a

certain point this increase in size gives a vast increase in sensitiveness, and "instantaneous plates" are prepared by prolonged cooking or by treatment of the emulsion with ammonia and slight heat.

In the case of a collodion emulsion, the light transmitted is of an orange or ruby tint, the violet, blue, and some of the green rays being absorbed, and it is just these absorbed rays which most readily reduce the silver salt, the orange and red rays being comparatively inert, and having even a retarding action on chemical change in some instances. According to what is known as Draper's law, a chemical change in a substance by the action of light involves the absorption of the chemically active portion by the light of the substance. This leads me on to orthochromatic photography, that is, the production of photographic images in their correct color value. So far this has not yet been quite achieved, but much has been done to that end. The silver salts in the film are not acted upon by the various colors in the same ratio as the eye is impressed by them, that is to say, the "photographic" and visual intensities of light are very different. Thus a blue object looks much less intense for light value to the eye than a red object, yet the light reflected from the blue is much more intense in its chemical action upon a film of silver salt than the light from the red. In showing how to correct this difference, Professor Vogel, in 1873, found that the silver haloid salts were rendered more sensitive to yellow and greenish-yellow rays by tinting them in a collodion film with coal-tar dyes, such as eosin, cyanin, etc., that is, these dyes acted as sensitizers of the silver salts for yellow and greenish-yellow rays. Since then other dyes have been used for these and other colored rays, but the greatest photographic intensity is still, as a rule, possessed by the violet and blue rays, although that is almost surmounted by placing a screen of tinted yellow glass before the lens, which absorbs some of the blue rays and modifies the action of that colored light upon the plate. I have here specimen photographs of flowers in vases taken with an ordinary film and an orthochromatic film with the yellow screen. The difference in gradation of tone will be evident. To prepare the plates they are either dipped for a time in a solution of the dye, then dried, or the dye is added to the emulsion before coating the plate.

The chemistry of orthochromatic photography is still based to a large extent upon theories which have not been corroborated by facts, although much experimental work has been done. The following explanation is based upon a number of interesting experiments by Captain Abney, which I have not time to give in detail.

It has been observed that amongst the most sensitive dyes are those which most readily fade. If a dyed plate be exposed for a long time in the spectrum, it is found to be bleached in the region of the yellow and red rays, or that part which is sensitized. If a short exposure be given and the plate be developed, the silver salt is found to be reduced most in the part which would be bleached by a long exposure, although sometimes the region of greatest intensity is somewhat intermediate between the maximum of the silver salt alone and that produced by the dye. Under the action of light of a certain color or wave length, the dye seems to decompose, forming products which have the power of reducing the silver salts below it, so that on development it is further reduced to the metallic state. Eosin, erythrosin, cyanin, and rose Bengal seem most suitable for obtaining a wide range of photographic intensity. Lippmann, by exposing a film of albumen treated with bichromate of potash solution and backed with a mirror of mercury, has obtained a plate which, when wet, shows an image by reflected light, which very nearly approximates to the natural colors. So far as I am aware no nearer approach to direct color photography has yet been made.

I now pass on to the "Chemistry of Intensification of the Image," and what follows must be very brief. One of the best and simplest methods of intensifying or increasing the density of the image is one which was introduced not long ago by Selle, and I mention it first because I wish to intensify half of a plate by this method in order to show the change which is effected. The intensifier consists of uranium nitrate and potassium ferricyanide, and the reactions are probably as follows: Uranium ferricyanide is formed in solution, and this is poured over the plate. The metallic silver on the plate has a reducing action on the ferricyanide causing insoluble ferricyanide of uranium and ferricyanide of silver to be formed, the former salt having a brown color. The color of the intensified image is very pleasing. Lead ferricyanide is used in the same way, and the reaction may be represented thus:

$$2Ag_2 + 2Pb_3Fe_2(CN)_{12} = Ag_4Fe(CN)_6 + 3Pb_2Fe(CN)_6.$$

The favorite method of intensifying consists in bleaching the image with a solution of mercury bichloride, and afterwards changing the color to brown or black with ammonia or the double cyanide of silver and potassium. On treating with the first solution, the silver reduces the perchloride to insoluble white subchloride of calomel, and silver chloride is formed at the same time. On adding ammonia solution, the subchloride of mercury is converted into insoluble black di-mercuros-ammonium chloride, and the silver chloride is dissolved out.

$$Hg_2Cl_2 + 2NH_3 = NH_2Hg_2Cl + NH_4Cl.$$

If the perchloride treatment be followed by the application of the double cyanide of silver and potassium, the black deposit is found to consist largely of silver with some mercury, cyanogen, and a trace of chlorine. The chief reaction might be represented thus:

$$Hg_2Cl_2 + 2AgK(CN)_2 = Ag_2 + 2Hg(CN)_2 + 2KCl.$$

Chemistry of the Toning of Silver Prints.—In albuminized sensitized paper, the salted albumen surface consists of albumen and ammonium chloride. The "salted paper" is floated on a bath of silver nitrate, then dried; a surface of silver chloride and silver albuminate being formed. On toning the silver image with gold or platinic chloride, the reduced silver salts, which constitute the image, in turn reduce the gold or platinum salt in solution, and a fine film of gold or platinum metal is deposited over the surface of the image, changing its color. The silver salts, unaffected by light, are dissolved out on fixing with sodium thiosulphate, as previously explained. Such salts as ammonium sulphocyanide are added to the gold solution in order to form salts of gold, which are more easily reduced than the chloride, and alkaline additions, such as borax, bicarbonate of soda, chalk, etc., are intended to prevent the formation of free acid, which would act as a restrainer and stop the toning process.—*British and Colonial Druggist.*

A Severe Case.

—

Two weeks ago I was summoned to the bedside of Djoahnne Sdtleometzhler. The involute and labyrinthinate tangle of his symptoms made me suspect at first that he had absorbed his own name. But further examination convinced me that he was the victim of typhomalariopneumophthisicotryehinotetanoataxionephreticosplenitis. Owing to the ubiquity of pathogenic bacilli, antiseptics are always indicated, so I exhibited calcium betanaphtholalphamonosulphonate. As the patient suffered from severe non-localized pain, I gave orthooxyethylanamonobenzoylamidoquinoline combined with salicylaldehydmethylphenylhydrazine. For his insomnia I gave trichloraldehydphenyldimethylpyrazolone.

His wife asked me what ailed him. I told her, and she said "yes," and turned very pale. Upon examining him on the next morning I became convinced that the vital forces had misconstrued the remedies, and that a congeries of retroabsorptions had resulted. I then wrote out the following prescription:

℞. Tetrahydrobetanaphtholamine,
Sodium thioparatoluidinesulphonate,
Orthosulphamidobenzoic anhydride,
Amidoacetoparaphenetidine aa 5j.
M. Sig.: A teaspoonful every hour.

When the wife presented the prescription to the druggist he instantly dropped dead! The patient is up and about, but something is wrong with his Broca's convolution—he mutters in a multisyllabic lingo that is intelligible only to modern pharmacists. I am in hiding where the spiral melody of the woodbine that twineth blendeth ever sweet, low, soothing, murmurous quadrisyllabic rhythmic rune of the gentle polygonum punctatum.—*Dr Cooper, in Medical Gleaner.*

A . . .

GLASS . .

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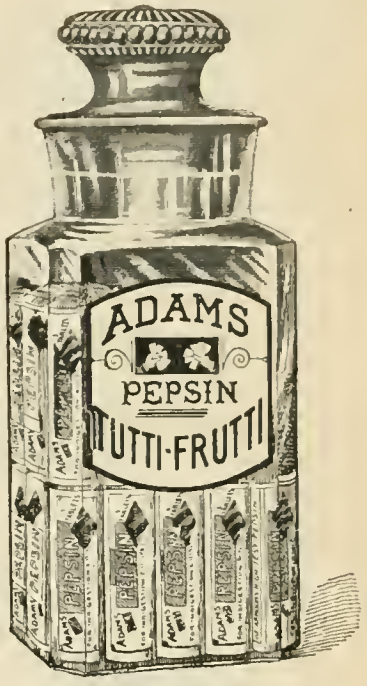

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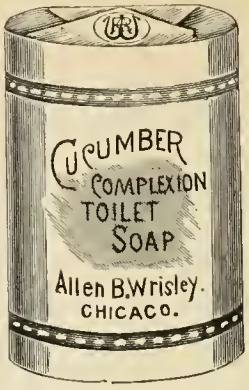

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Tho Early History of Phosphorus.

The term phosphorus was formerly applied to any substance which was luminous, either after exposure to light or after the application of heat, and the "phosphori," which received so large a share of attention, had no connection with the substance now known as phosphorus, and should rather be regarded as the ancestors of the luminous paints of to-day.

The peculiar, light-emitting property of the phosphori, however, secured to them so great a popularity among the dilettanti that when the element was isolated it was sold at a fabulous price, and was regarded by many as an important step towards the discovery of the divine arcanum by which base metals could be transmuted into gold. The value possessed by the so-called phosphorus (a sulphide of barium) of Balduin in the seventeenth century is well shown in a letter from Christianus Adolphus Balduinus to Mr. Oldenburg, sent with a piece of "phosphorus" in a silver-gilt box for "His Majesty the founder of the Royal Society" (*Phil. Trans.*, 1676-7, vol. xi., No. 131, p. 788).

Although, with an unusual extension of the novelist's license, Charles Reade makes one of the characters in the "Cloister and the Hearth" use phosphorus in the fifteenth century, it was not until the year 1667, according to some authorities, or 1669, according to others, that it was actually isolated.

The discovery has been variously attributed to Brandt, Krafft, Kunkel, and Boyle. It would appear that either Brandt or Krafft was the original discoverer, but there is little doubt that Robert Boyle discovered it independently, for Kunkel himself stated that such was the case (see Kunkel's "Laboratium Chymicum," page 660, and Weigleb's "Geschichte des Wachsthums und der Erfindungen in der Chemie," v. i., p. 41). A paper deposited by Boyle with the secretaries of the Royal Society on October 10, 1680, and opened after his death, shows that he really obtained phosphorus from urine while the German process was still a secret (*Phil. Trans.*, 1692, v. 17, No. 196, p. 583).

Godfrey Hanckewitz, Boyle's assistant, appears to have been most expert in the manufacture, and is said by Thomson ("System of Chemistry," 1817, v. i., page 258) to have supplied all Europe for many years. According to Thomson, this phosphorus was known as "English phosphorus," but Hellot, who published the first complete description of the preparation, says that phosphorus was known throughout Germany as "Kunkel's phosphorus" (see "Mémoires de Mathématique, etc., de l'Académie Royale des Sciences," 1737, pp. 342 to 378). Hanckewitz gives a somewhat different version of the discovery of phosphorus, which will be found in the later portion of this article.

Probably the most reliable account of the discovery is that of Godfrey de Leibnitz in the "Miscellanea Berolinensia" (1710, v. i., p. 91 to 98). According to this account, "Brandt had fallen on a chymical process extant in a printed book, which taught how to prepare from urine a liquor fit to ripen a particle of silver into gold; and in laboring on this he found out his phosphorus. He had some acquaintance with Daniel Krafft, of the Council of Commerce to the Elector of Saxony; and, by his means, with Kunkel, one of the said prince's bedchamber, but who, under that character, performed chymical processes. On persuading Brandt that this arcanum might be sold to the great at a high price, and offering him their assistance, they obtained the composition from him. And upon going from Dresden to Hamburgh, they both saw and learned from him the process of the phosphorus. But Kunkel upon his return home had committed some mistake in the process, and for a long time could not hit upon the phosphorus, and he sent a letter to Brandt, complaining that the secret had not been sincerely communicated to him. But Brandt, repenting that he had been so easy in imparting the secret, delayed to satisfy him. Kunkel, in the meantime, after various trials corrected the error himself, whence he pretended to be the inventor, and of this Brandt bitterly complained.

"Krafft, who was a man of good address, undertook to vend the discovery among the great; and, in his way to England, he made a visit at Hanover, and ingenuously mentioned to me both the matter of the process and its author, Brandt; and he likewise showed the experiment of the phosphorus, to the great surprise of Duke John Frederic, and afterwards in England to King Charles II., Prince Rupert, the illustrious Mr. Boyle, and others, of which there is an account by Mr. Hooke. But he never, so far as I know, mentioned himself as the inventor. The phosphorus was first sent into France by me to Huygens, and at length the composition itself was by the illustrious Tschirnhausen, upon his return from Germany into France, communicated from me to the Royal Academy, to whom Huygens had already shown the thing. That Boyle had got but an imperfect description of it appears from his dissertation on phosphorus; for his phosphorus differs from Brandt's only in this, that it is more imperfect.

"But Duke John Frederic, as he was a magnificent and generous prince, ordered that I should send for the inventor. Brandt, therefore, came to Hanover and faithfully communicated to us the process, for whatever he did I imitated in another laboratory. Upon collecting a large quantity of urine, Brandt came to us, and went through the process. Upon Brandt's return to Hamburgh the duke settled an annual pension upon him, which was punctually paid him till the duke's death; and this probably was the only considerable encouragement which he reaped from his phosphorus."

Dr. Kunkel's phosphorus or "noctiluca" was also described in the "Philosophical Collections of Mr. Robert Hooke" (1681, No. 2, p. 8) by Dr. Sturm, who stated that Kunkel could extract phosphorus "out of any kind of terrestrial body whatever, as if it were there naturally placed."

Owing to the singular properties possessed by phosphorus, it occupied the attention of all the principal chemists whose writings are extant in the scientific literature of the period. Among these may be mentioned Tschirnhausen ("Anciens Mémoires de l'Académie Royale de Paris," 1682, vol. i., p. 342), Homberg (*loc. cit.*, 1692, vol. ii., p. 135), Hofmann ("In Observationibus," Hall's edition, 1722, p. 336), Theichmeier ("Elementa Philosophiæ Naturalis et Experimentalis," 1724, p. 43), Nieuwentuit ("Existence de Dieu Demontrée, etc.," p. 324), who obtained phosphorus from "old urine," which he collected from a hospital; Marggraf, who gave in the "Miscellanea Berolinensia" (1743, v. vii., pp. 324 to 344) a plate of figures showing the furnaces which he employed, and others whose work is referred to later.

According to Chambers' "Encyclopædia" (1738), a Mr. Elzholt published in 1676 a special treatise dealing with phosphorus, and the "Aërial Noctiluca" of Boyle (1680), bearing on the subject, is well known.

The process employed by all the earlier investigators consisted in evaporating urine (which contains about 0.032 per cent. of phosphorus) to dryness and distilling the residue until the phosphorus passed over, and, considering that the chemists of the period adopted the process of destructive distillation as the best means of ascertaining the composition of nearly all organic bodies, it is remarkable that the discovery was not sooner made. The most successful workers appear to have been those who were most experienced in the use of furnaces, but some of them laid great stress upon the source of the urine, and that of beer-drinkers appears to have been in especial favor. Boerhaave ("A new Method of Chemistry." Translated by Shaw and Chambers, 1727, p. 196), however, says that the best is that from persons not much accustomed to drink wine.

Homberg mixed the dried urine with red bole, Boyle employed white sand, and Boerhaave powdered charcoal, but a very considerable improvement was introduced by Marggraf, who added lead chloride to the dried urine, and by Giobert, who first precipitated the phosphoric acid with lead nitrate and distilled the lead phosphate so obtained with charcoal ("Annales de Chimie," v. 12, p. 15).

The ignorance which prevailed among chemists as to the true nature of phosphorus is well shown in the following account from James' "Medical Dictionary" of 1745:

"Dr. Wall informs us that Mr. Boyle, being concerned to find how small a proportion of phosphorus was afforded by urine, desired him to look out for another subject that might afford it in greater plenty. The doctor afterwards causing a piece of dry matter to be dug up in the fields where night-men emptied their carts, he observed a great number of small par-

ticles of phosphorus therein. This matter the doctor immediately carried to Mr. Boyle, who set Bilgar, the chymist, to work upon it. But he could obtain very little phosphorus from it till another material was added to it in distillation, and then he procured phosphorus in such plenty that, selling large quantities at six guineas the ounce, he soon became rich, and left England." It should be mentioned that Bilgar was assistant to Boyle before Hanckewitz.

It is probable that, by the end of the seventeenth century, no substance had been so fully and accurately experimented upon, although the explanations of its action and the anticipations of its value were often expressed in almost ludicrous terms. Dr. Frederick Slare (Hooke's "Philosophical Collections," 1681, No. 3, p. 48, and No. 4, p. 84) says that it was then obtained as "transparent as any resin" and melted like wax in warm water. His remarks show that it was even then obtained in a state of great purity, and he finishes his paper by saying "what medical use may be made of this noble concrete time may discover," adding the hope that it may explain "certain phenomena of nature, including the observation of the learned Dr. Croone, who, on rubbing his body with a fresh and well-warmed shift, made both to shine."

An amusing example of the almost religious ceremony with which phosphorus was treated is found in the *Philosophical Transactions* (1733, vol. 38, No. 428, p. 55), where a description and an elaborate drawing of an apparatus employed for burning phosphorus is described by Dr. Frobenius, the companion of Hanckewitz. The phosphorus was ignited in a golden bowl, contained in another golden bowl on a tripod of the same metal, a glass-bell jar being suspended above to receive the "snow" which the combustion produced. The apparatus was described as the "Machina Frobeniana," and each operation was compared with one of the phenomena of nature, the phosphoric anhydride to snow, and its deliquescence to the melting of snow. In this and similar experiments the learned doctor was in the habit of igniting the phosphorus with the heated tip of his sword.

Almost immediately afterwards, Hanckewitz (*loc. cit.*, p. 58) showed that the Machina Frobeniana was unnecessarily elaborate, and repeated the experiment in a "warmed china cup." He mentioned the production of amorphous phosphorus as a "red caput mortuum" and gave a very complete description of his experiments, observing that "this phosphorus is a subject which occupies much the thoughts and fancies of some alcymists who work on microcosmical substances, and out of it they promise themselves golden mountains."

According to him, Kunkel, Krafft, and Brandt were only able to obtain a little "unctuous opaque phosphorus," and not the true hard "glacial" phosphorus. He considered that Kunkel either spoke too much at large or designed to impose upon the world, and stated that, at the time of speaking, he was the only man capable of making real phosphorus. Hanckewitz was undoubtedly the principal maker of phosphorus in his time, and it is interesting to note that he was the founder of the firm of Godfrey & Cooke. A considerable amount of information on the work of Hanckewitz was given in a paper by Mr. Joseph Ince in the *Pharmaceutical Journal* (1859, pp. 126, 157, and 215).

The chemical properties of phosphorus were carefully studied immediately after its isolation, and the discovery that it increased in weight on burning, which is attributed to Marggraf, is said to have been in part responsible for the overthrow of the phlogiston theory, for Lavoisier showed that its increase in weight when burned in oxygen equalled the loss of oxygen. Lavoisier appears also to have been the first to definitely show that phosphorus was an element, and to point out its wide distribution throughout the vegetable kingdom (see Lavoisier's "Elements of Chemistry," translated by Kerr, 1802, vol. i., p. 323).

Priestley also examined its action on burning in air ("Experiments and Observations on Different Kinds of Air," 1790, vol. i., p. 170).

The action of phosphorus on metals was experimented upon by Marggraf, and later by Pelletier, who found that most metals combined with it when heated. Dr. Peter Shaw (James' Medical Dictionary, 1745, article "Phosphorus") says that the "acid of phosphorus proves a menstruum to perhaps all the metals, but when this acid is driven into the pores of the metal by the action of the flame in burning the phosphorus, it seems productive of much greater effects, as is well known to those connected with the sublimer metallurgy."

The production of amorphous phosphorus during the distillation of phosphorus was early known, but it was not recognized as a form of the element, but as an oxide. Aikin ("Dictionary of Chemistry and Mineralogy," 1807) described it as "a brown red powder which diffuses itself in water like clay, and consists chiefly of phosphorus so peroxygenated as to be no longer combustible."

The modern method of preparing phosphorus is beyond the province of this article, but it may be mentioned that Gahn, a Swedish chemist, showed in 1769 that phosphorus was contained in bones (see "Bergmann's Notes," 1796, p. 203), and that the credit of preparing it from them appears to be due to Scheele. In 1775 he obtained it by treating bone-ash with nitric acid, precipitating the lime from the solution by addition of sulphuric acid, evaporating the solution and distilling the residue with charcoal. Nicolas and Pelletier (*Journal de Physique*, vols. 11 and 28) improved upon the process by dispensing with the use of nitric acid, and Fourcroy and Vauquelin (*Journal de Pharmacie*, v. i., p. 9) determined the proportions most suitable for operations on the large scale. Aikin ("Dict. of Chem. and Min.," 1807) mentions, as a good yield, that Pelletier obtained 60 ounces of phosphorus from 576 ounces of bone-ash.

It was also common at the commencement of the present century to prepare phosphorus by precipitating the phosphoric acid from superphosphate of lime with lead nitrate, and distilling the phosphate of lead thus produced, with charcoal (Rees' "Encyclopædia," 1819).—*Pharm. Journal and Transactions.*

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This is the present prospect of the cost of crude glycerin in France, according to the dictum of M. A. M. Villon, who is one of the best posted men in that country in matters pertaining to pharmaceutical and chemical industries. M. Villon says (in the *Monde Pharmaceutique*): "Installations are now in progress for the production of cheap glycerin, and we are about to witness a very considerable tumble in the market price of the commodity—in fact, from 300 francs to 100 francs the ton, for crude glycerin." Pure white glycerin costs in England only 300 francs ($57), and the crude article from 80 to 100 francs ($15.20 to $19) the ton. In this country the price is from 13½ cents to 15 cents per pound for ordinary glycerin, or from $270 to $300 per ton. Schering's glycerin, in 10-lb. bottles, six in a box, costs 35 cents per pound, or $700 a ton. Quite a difference!—*National Druggist.*

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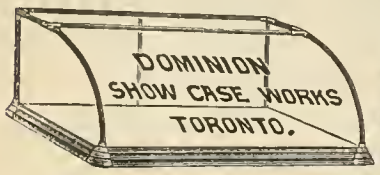

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The Cleveland Pharmaceutical Association has issued a circular bearing the above title. The circular says: "Carbolic acid, U.S.P., is in crystals; and not being convenient in this form for the household or medical use, it is made liquid by the addition of from 5 to 8 per cent. of water; when thus prepared, it does not strictly conform to the legal (U.S.P.) standard, yet by common usage it has become recognized by the public and by many physicians, erroneously, as true carbolic acid, and has been so labelled."

Since this conveniently liquefied acid apparently mixes with water, oils, and other liquids, yet solution does not usually take place. The strong, milky, or cloudy acid that remains undissolved acts as a powerful caustic instead of a healing agent.

"If directed to be mixed at home with oil, vaseline, lard, or other fats, the liquefied acid will not dissolve on account of the 5 to 8 per cent. of water it contains, thereby resulting in caustic instead of healing actions."

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"The Cleveland Pharmaceutical Association, having had its attention called thereto, and believing that it owes a duty to the public to prevent injury as far as possible without depriving the people of the proper use of a valuable drug, have devised and adopted a formula and label for carbolic acid for general dispensing purposes, which they hope will do away with much of the injury due to careless use, and respectfully request the co-operation of all pharmacists and physicians to that end.

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Melt the acid and stir in the glycerin.

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"This No. 33 acid mixes readily with water or alcohol in all proportions, and not being as caustic cannot result in as much mischief or fatality if taken accidentally or purposely.

"The Cleveland Pharmaceutical Association have unanimously decided to recommend:

"(1) To all druggists, and especially to their members, not to dispense a stronger carbolic acid than No. 33, except on physicians' prescriptions.

"(2) To all physicians, when desiring to mix carbolic acid with fatty bodies, instead of entrusting such dangerous work to the laity (since such work requires professional skill to suit each case), it will be the best entrusted to the proper professional expert—the pharmacist.

"(3) To all physicians requiring the liquefied carbolic acid as hitherto dispensed, to please specify this article in their prescriptions to avoid error and relieve the druggist of the responsibility for dispensing it, or of embarrassment for refusing to sell without prescription.

"(4) All druggists desiring electrotypes of the label may obtain them by applying to the committee."

The label which accompanies the circular designates the solution as "Strong Carbolic Acid, Fluid No. 33." The antidotes are given, and also the directions for making a 1 per cent. solution by mixing one tablespoonful of the solution with one pint of water.

Paraffin as a Secondary Ingredient in Pomades.

M. E. Cranzel, in the *Bulletin de Pharmacie de Bordeaux*, strongly recommends paraffin as a secondary ingredient to give consistency in pomades, such as the various cerates, cold cream, chloroform ointment, camphor ointment, etc., in place of the dearer white wax, or spermaceti. It is not only cheaper, but better. M. Cranzel says:

It will aid in keeping such preparations, which, owing to the ready oxidation of the fats composing them, are prone to rancidification. The three products—white was, spermaceti, and paraffin—have a close analogy in their physical properties, density point of fusion, solubility in certain liquids, etc.

In point of stability, and other principal properties, pomades with paraffin as a base are in no whit inferior to those prepared with white wax or spermaceti. Take Galen's cerate, for example, prepared with paraffin in the proportion that white wax is generally used, and it will be found even whiter than the old product, and less unctuous. The same applies to cold cream. The great and real value of paraffin, however, lies in its inalterability, and that quality in cerates, etc., made with it.

In the opinion of M. Cranzel, paraffin is destined to replace wax, both white and yellow, and spermaceti in all preparations in which the latter now enter, even as lard has been supplanted by vaselin in current use—for other reasons, it is true, but for analogous considerations.—*National Druggist.*

On the Determination of Morphine in Opium.

By Lyman F. Kebler, M.S., Ph.C.

As is very well known, the morphine obtained by the official process contains an appreciable quantity of impurity. This impurity is supposed to consist principally of calcium meconate. In order to prove or disprove this supposition, a quantity of the crude morphine was carefully incinerated in a platinum crucible, and the ash examined quantitatively. It was found that more than one-fourth of the residue consisted of salts of potassium and sodium. On this analysis the per cent. of pure morphine was based. The per cent. of pure morphine was also established by titration with a volumetric acid solution, the lime water method, and the absolute alcohol method. The relative efficiency of the methods is as given in the above order.

Series of experiments were at once undertaken to determine whether the per cent. of impurity contained in the crude morphine was in excess of the per cent. of the morphine lost in the assay. One hundred grams of opium were extracted as in the assay method, and nine assays made. The time allowed the morphine for precipitation varied from 3 to 36 hours. In the portion of aqueous extract remaining, the amount of substance precipitated by alcohol alone was estimated.

The per cent. of pure morphine was estimated in each case by the ash method, titration with a volumetric acid solution, and the lime water method. As a final per cent. of pure morphine, the averages of all the percentages obtained, excepting the three-hour, was taken as representing the per cent. of pure morphine contained in the crude morphine.

The mother liquors and the aqueous washings were collected in a bottle from eight assays, and the amount of precipitate estimated after allowing the mixture to stand two months. An aliquot part of the above mixture was next treated according to Dieterich's process. It was found that the per cent. of pure morphine ultimately obtained corresponded very closely to the amount of crude morphine precipitated in twenty hours. From the results obtained, it was concluded that the amount of morphine last in the assay corresponded closely to the per cent. of impurity contained in the crude morphine. If the U.S.P. directions are adhered to closely, the per cent. obtained very closely represents the per cent. of morphine originally contained in the opium.—*British and Colonial Druggist.*

Substitute for a Funnel.

Prof. A. M. Edwards (*Chemical News*) dispenses with the use of a funnel in cases of difficult filtration through paper, replacing it by a piece of celluloid, in which numerous holes have been punched. This is bent into the shape of a funnel, and supported in a retort stand ring. When not in use the celluloid can be washed and put away flat like a piece of paper.

Only those who pay their bills have a right to help the poor.

Pharmacy Abroad.

THE NEW NORWEGIAN PHARMACOPŒIA.—The third edition of the Norwegian Pharmacopœia is now published, and is official. It is partly in Latin, partly in Norwegian, and in some respects resembles the last Russian Pharmacopœia The nomenclature and composition of compound remedies are in Latin, whilst the description of single drugs, tests, and preparation of compound galenicals are in Norwegian. As set forth in the preface, 110 old official preparations have been expunged and 89 new ones introduced. Many and important alterations in nomenclature have taken place, more even than in the last Danish and Swiss Pharmacopœias. Both valerian and rhubarb appear as rhizomes.—*British and Colonial Druggist.*

THE GERMAN PHARMACOPŒIA.—In the supplement of the German Pharmacopœia just appearing, the following new medicaments are included: Camphoric acid, hydrobromic acid, cresolated water, basic salicylate of bismuth, bougies, benzoate of soda and caffeine, cresol, formaldehyde solution, solution of cresol "soap," salicylate of lithium, mercuric chloride pastilles, creasote pills, salicylate of soda, and theobromine, tincture of aloes, and cantharides ointment for veterinary use. —*Journal der Pharmacie d'Anvers.*

THE DRUG TRADE IN THE PHILIPPINE ISLANDS.—M. G. de Bérard, French consul at Manilla, in the Philippine Islands, reports that the importation of chemicals, pharmaceutical products, and perfumery in his district in the course of 1893 exceeded that of 1892 by about 15 per cent. in value. This increased importation marks a partial return of the prosperity enjoyed by the pharmaceutical trade some years ago. The last increase in the customs tariff of the islands, however, which specially affected the articles named, has considerably injured the business in high-class British and French goods, and assisted the development of the trade in spurious imitations. In 1893 Spain supplied 398 tons, France 36 tons. Britain 1,127 tons, China 3,083, Germany 188, Japan 479, Belgium 12, Singapore 110, and the United States 35 tons of chemicals and pharmaceutical goods. There has been a great increase in the imports from Germany, due, says the consul, to the deliberate imitation, in that country, of British and French goods of high repute. Perfumery is in great demand.—*Chemist and Druggist.*

PHARMACY IN JAMAICA.—In a letter to the *Chemist and Druggist*, Mr. Albert J. Salmon, Apothecaries Hall, Montego Bay, Jamaica, gives the following interesting notes regarding the practice of medicine and pharmacy in Jamaica:

There are several fine pharmacies ("doctors' shops") in Jamaica, many of them fitted up in the European and American styles, especially those in Kingston. The majority of those in the country are miniature emporiums, as nearly every conceivable article is sold, so as to make up a living turnover. Prior to 1881 there was no pharmacy law, consequently any one could keep open shop for the sale and compounding of drugs and poisons; and the writer remembers one of these shops, in a populous district of Kingston, carried on by a pretended disciple of Galen, who was just able to sign his name.

In 1881 the "Drugs and Poisons Law" was enacted, which compelled all persons to obtain by examination a license before they could keep open shop for the sale of drugs and poisons, but no curriculum was enforced, except in the case of apprentices at the public hospital, who were required to undergo three full years' tuition at its dispensing school before presenting themselves for examination.

A new law was enacted last year repealing that of 1881 and its amendment of 1885, and the new Act requires a curriculum of two years, and the second year at least must be under a medical practitioner, or one already licensed. Candidates must be twenty-one years of age, and must pay a fee of £2. Persons licensed under the Pharmacy Acts of Great Britain and Ireland are exempt from examination, but must produce certificates of qualification, and pay a fee of £2. In the case of any one requiring a special examination a fee of £5 is demanded. Licensed druggists of other countries are allowed an examination, provided the superintending medical officer is satisfied with the certificates of their curriculum. Any one licensed under the law is, in case of any conviction as a misdemeanant, liable to have his license suspended by the superintendent medical officer on the approval of the governor.

Patent medicines are in great demand, and American and Canadian proprietary medicines are fast becoming the leading ones—such as Scott's Emulsion of Cod-liver Oil, Ayer's Cherry Pectoral, Pills and Sarsaparilla, Bristol's Sarsaparilla, Northrop & Lyman's Vegetable Discovery and Canadian Healing Oil, Perry Davis' Pain Killer, Morse's Indian Root Pills, Ross' Life Pills, American Specific, etc.—simply from the fact that these firms "work up" the country by means of their travelling agents and advertisements.

Druggists, as a rule, do very little dispensing, as the majority of doctors supply their own medicines. A feeling of strong antipathy exists among a large number of the doctors and druggists, on account of the latter carrying on a prescribing business. Druggists are frequently called "doctors," and this seems to be the cause of the bitter feeling on the part of the regular practitioners. The origin of the appellation "doctor" for a druggist is not generally known, but it arose in this way. During the days of slavery, there was scarcely any system of skilled medical aid provided for the slaves; but there was always at hand some intelligent man who was able to administer medicines to the sufferers, practising a recognized empiricism. These persons were styled "hothouse doctors," and were looked upon by the slaves as great benefactors. The poor creatures not being placed in a position to know the difference between a qualified and an unqualified man got to know no one else but these "doctors," consequently the name has been handed down as a manner of addressing any one who is publicly recognized as having anything to do with preparing or prescribing medicines. And so it will continue, unless the present generation at school are taught to address druggists differently.

Plastic Gelatins.

Under this name M. Dané, chemist and pharmacist at Valence-d'Agen, designates (*Union Pharmaceutique*) a series of magistral preparations, easy to prepare, intended as the excipient of exceedingly active remedies (or others, if desired). The base is gelatin, glycerin, and water, proportioned as follows:

Gelatin (in colorless leaves)	15 parts.
Glycerin (30°)	50 parts.
Distilled water	60 parts.

Melt together in the water bath, and before the mass sets add the medicinal agent in the dose desired, then pour out on the slab or in moulds.

Ovules.—You can use for this purpose either oiled ovular moulds or eyelets. In the latter case all that is necessary is to moisten one side of each moulded half with gelatin, dissolved in water, and unite the two. Ovules are, however, not a good form for commercial purposes, or where medicaments are put up in quantity. They dry too easily, or alter otherwise.

For suppositories the process is the same. The author also prepares other forms—buttons, medicated nipple covers for chapped and sore nipples, etc., and finally he uses sheets of the mass poured out on oiled slabs, in the place of cloths, for spreading plasters on, or as plasters where a simple emollient is wanted. Where a medicated plaster is desired the medicament—morphine, iodoform, etc.—is sprinkled or spread on the surface, the latter being first slightly warmed.—*National Druggist.*

Northwest Territories' Pharmaceutical Association.

The result of the election for the Council of the Pharmaceutical Association of the N.W.T., held in Regina, March 20th, was as follows: W. G. Pettingall, Regina; Robert Martin, Regina; W. W. Bole, Moose Jaw; J G. Templeton, Calgary; A. D. Ferguson, Wolseley.

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Placez un de ces Feutres au-dessus d'un plat ou assiette; tenez-les humides avec de l'eau. Usez seulement assez d'eau pour tremper le Feutre. Les mouches boiront l'eau empoisonnée, sortiront du Feutre et mourront immediatement.
CAUTION.—Should the liquid be swallowed by accident at once administer in large doses, Lime Water, Flaxseed Tea, or Iron Rust, followed by an emetic and drinks of Milk or Flour and Water.
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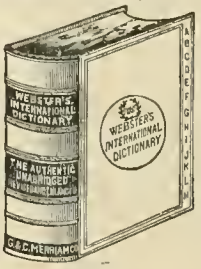

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Formulary.

ACID PHOSPHATE SOLUTION.

The following formula is said to yield a good article :

Phosphoric acid (50 per cent.)	64 parts.
Precipitated chalk	12 parts.
Calcined magnesia	1 part.
Potassium carbonate	1 part.
Distilled water	178 parts.

Add the chalk to the acid gradually, and then add the magnesia and stir well. Dissolve the potassium carbonate in 9 fl. oz. of the water, add the solution gradually to the acid liquor, admix the remainder of the water, set aside for one or two hours, and filter.

TO FLAVOR COD LIVER OIL.

Oil of eucalyptus, 1 per cent., is added to cod-liver oil by Duquesnel (*Jour. de Pharm.*), and is said to hide its odor and taste. A more elaborate process is recommended by Paresi (*Presse Médicale*), who mixes cod liver oil, 400 gm., freshly roasted and ground coffee, 20 gm., and animal black in powder, 10 gm., in a stoppered vessel, and warms it on a water bath at a temperature of 60° for a quarter of an hour. The mixture is then left for two or three days, except that it is shaken from time to time, and, finally, filtered through paper. The product is described as amber-colored, and as having a distinct odor and taste of coffee.—*Pharmaceutical Journal.*

WINE OF CREOSOTE.

E. Dietrich gives the following formula for creosote wine :

Creosote	12 parts.
Tincture of gentian	30 "
Alcohol	250 "
Red wine (claret) sufficient to make	1000 "

—*National Druggist.*

BORO-SALICYLIC GLYCEROLE.

Boric and salicylic acids, when heated with glycerine, are dissolved in large quantities. On cooling, however, a thick and granular pasty mass results. If the solution is now heated almost to boiling and a trace of calcined magnesia is added, it remains perfectly limpid on cooling. The product is also quite soluble in water, and it is easy to prepare extemporaneously a solution containing equal quantities of the two acids in a state of concentration not otherwise obtainable. Nor are the antiseptic properties of either body in any way impaired. The proportions are :

Boric acid	10
Salicylic acid	10
Distilled water	10
Glycerine	40
Mag. oxid	1

—*Repertoire.*

LICORICE LOZENGES.

1.—Extract licorice	2 parts.
Starch	1 part.
Powd. orris root	1 part.
Powdered saffron	1 "
Sugar	32 parts.

Mix and make into lozenges of the usual shape and size.

2. Powd. stick licorice	70 parts.
Powd. orris root	1 part.
Powd. star anise	4 parts.
Powdered sugar	70 parts.
Mucilage acacia	a sufficient quantity.

Form into lozenges weighing 8 grains (50 ctg.).

3.—Stick licorice	2 parts.
Acacia	1 part.

Dissolve the licorice in warm water, strain, and in the solution dissolve the acacia. Place over a gentle fire, in a broad pan, and let boil gradually, stirring continually until reduced to a paste. Roll into cylinders of the usual size, and polish by rolling them together in a box ; or cut the mass into lozenges of the desired size.—*Merck's Report.*

CLEANING ELASTIC STOCKINGS

Soap in powder	av. oz. 32
Ammonia (10 p.c.)	fl. oz. 7
Cologne water (or dilute alcohol)	" 33
Water	" 60

Dissolve the soap in the water, and, when solution is complete, allow to stand for two days; then add the ammonia water and cologne. For use : Dissolve one-half ounce of this soap in a quart of cold water, in which let the stockings steep for 24 hours, then remove and wash well in cold water by shaking.—*Chemist and Druggist.*

COPYING INK FOR TYPEWRITERS.

	Parts.
Soap	30
Glycerin	125
Alcohol	721
Water	360
Anilin, q. s. to color.	

If the ink is too penetrating, add more soap ; if not sufficiently so, decrease the quantity.—*Bayerische Industrie-und-Gewerbe Blatter.*

COLD LIQUID GLUE.

To make glue liquid in the cold, nitric acid is generally added ; thus we may take

Glue	8 parts.
Water	8 "
Nitric acid	2½ "

The nitric acid may be replaced by acetic acid. Thus an excellent liquid gum is made by dissolving one part of glue in two parts of vinegar.

Another process consists in dissolving by the aid of heat :

30 parts of glue in
80 " " water,

and immediately adding

5 parts of hydrochloric acid and
7 " " zinc sulphate.

A very strong liquid glue is obtained by the action of caustic soda upon glue. The following proportions are used :

Glue	1000 parts.
Water	1500 "
Commercial caustic soda	40 "

—*Manufacturing Chemist.*

SOLUBLE PYROXYLIN.

By treating nitro cellulose with caustic potash in presence of carbon bisulphide, Cross, Bevan, and Beadle find that it is converted into a gelatinous mass which is soluble in boiling water.

TO COLOR SMALL ARTICLES OF IRON AND STEEL A LASTING BLACK.

George Buchner gives the following in the *Bayer. Ind. u. Gew. Bl.* : Dissolve 70 parts of copper nitrate in 30 parts of alcohol, and with this solution pencil over the article, having first slightly warmed the latter. Lay the article upon a bit of tinned iron (sheet tin) and heat. The nitrate is decomposed with the formation of copper oxide in exceedingly minute particles, which attaches itself to the iron. Upon cooling, brush off, and the iron will be found a fine steel gray. Upon repeating the operation several times, the iron becomes covered with a beautiful dead-black coating, which is very durable. The addition of an alcoholic solution of manganese nitrate to the copper solution produces a fine bronze color.—*National Druggist.*

Sulphides of Zinc.

A. Villiers shows that precipitated zinc sulphide may be obtained in two varieties possessing the same composition. Each of them may exist in different degrees of hydration, but they are completely distinct, and cannot be directly transformed into each other between zero and 100°. The acid sulphide is obtained in an amorphous form by the action of hydrogen sulphide upon an alkaline solution of sodium zincate. By the action of heat the precipitate appears to assume a crystalline form, but this point is not quite clear, though there is, undoubtedly, some modification effected. The solubility of both forms of the acid sulphide in aqueous hydrogen sulphide solution distinguishes it from the basic sulphide, which may exist in both amorphous and crystalline conditions, and is precipitated from an acid solution of a zinc salt by hydrogen sulphide. The crystalline variety, which is completely insoluble in aqueous hydrogen sulphide solution, is usually precipitated from a solution of zinc sulphate, and the amorphous, which is but slightly soluble, from the acetate. This second form can be transformed into the crystalline variety by the action of heat.—*Comp. rend.*—*Pharmaceutical Journal.*

The sneer of the dead-beat is a high compliment to the merchant.

A hustling employer turns out successful business men.

Don't try to be charitable at the expense of your creditors.

A surly employer spoils all the good work of polite clerks.

Pharmaceutical Notes.

Anesthyle.—The above name has been given to a mixture of five parts of ethyl chloride with one part of methyl chloride, the use of which has been suggested by Dr. Bengué, a French physician, for producing local anæsthesia.

Silver Sulphide.—A Ditte (*comtes rendus, Pharmaceutical Journal*) describes how silver sulphide, kept cool and in the dark, changes in a short time in the presence of a saturated solution of potassium sulphide. From black it turns red, forming small crystals, which are but little soluble in the solution, and have, when dried in an atmosphere of carbon dioxide, a composition which may be represented by the formula—$4Ag_2S,KS,2H_2O$. The same compound is formed on boiling together silver and potassium sulphides. It is altered by light and decomposed by water, the latter reaction allowing the silver sulphide to be obtained in the form of grayish-black crystals. A double silver and sodium sulphide can also be prepared, though not in the cold, the red crystals having the composition—$3Ag_2S,Na_2S,2H_2O$, and being at once decomposed by water.—*National Druggist.*

Peruvian-Balsam Tests. — Recent work in Germany on the nitric-acid test for Peruvian balsam, which is performed by treating the residue from petroleum spirit, shaken with the balsam and filtered with nitric acid, shows that, as directed by the German Pharmacopœia, it is misleading so far as the detection of copaiba and storax is concerned. A spirit less than specific gravity 0.688 should not be used. It has taken German chemists a long time to arrive at this conclusion. The misleading character of the test was clearly pointed out by MacEwan in 1884 (*Chemist and Druggist*, xxvi., 395), who also observed that the German nitric acid is too weak to ensure the reactions, and that a petroleum spirit, specific gravity 0.710 or thereabouts, is most suitable.

New Process Filtering Paper.—A German by the name of Craemer has introduced a new method for making filter paper for chemical purposes. It is said that he works in a greater or less proportion of nitrocellulose with the cellulose or cotton-wool stuff usually employed, the effect of which is that the filtration is more rapid, since the nitrocellulose has no tendency to felting, and that the paper is only slightly hygroscopic, and that when the filter is burned the combustion is more rapid in proportion to the amount of nitrocellulose present. When the proportion of cellulose is large it is said to be almost instantaneous.—*Monthly Magazine.*

Saligenin as a Succedaneum of Salicin.—Lederer, basing his opinion on the ground that saligenin is probably the active principle of salicin, in which it occurs to the extent of 42 per cent., suggests that it be used in medicine in place of that substance. Saligenin is derived from salicin by the agency of a ferment, which splits the glucoside into saligenin and glucose. By using saligenin in those cases where salicin is indicated, the organism would be spared the labor of the zymotic process. The *Medizinische Wochenshrift*, from which this notice is taken, says that the physiological action of saligenin has not yet been established. —*National Druggist.*

To Render Creasote Soluble. — Creasote may be made soluble in water by making a mixture of 80 grams of tincture of soap-bark, 60 grams of water, and 10 grams of creasote. The liquid thus formed is soluble in any quantity of cold or warm water.

Myronin, a New Ointment Vehicle. —Under the name of myronin a German firm are introducing a mixture of vegetable wax and doegling oil as a nonrancidifying ointment vehicle. In their printed matter they say that if the free fatty acids, which wax of copernicia cerifera always contains, are neutralized by alkalies, the wax is in such a condition that it will easily mix with considerable quantities of other fats or water. In fact, a preparation in which the wax and water are in proportions of one to five is of the consistence of soft paraffin. After the wax and the doegling oil have been freed from all albuminoids, and have been purified by filtering and washing, the free acids of the wax are neutralized with weak hot alkaline carbonate solution, in the calculated quantity. Doegling oil is then added in sufficient quantity to give the required consistency as found by experience, and the whole is mixed to a homogeneous mass by mechanical means. The normal product contains 12.5 per cent. of water, but this can be raised or lowered at will.—*Western Druggist.*

Magnesium Sulphophenate.—This is one of the series of sulphophenates, of which aluminum sulphophenate (sozal) was the first example. It is prepared by the double decomposition of baryta sulphophenate by magnesium sulphate. It appears as white crystalline needles, almost inodorous and of not unpleasant taste. It is soluble in two parts of water, or five parts of alcohol.

The Production of Ozone.—As our readers are no doubt aware, the value and importance of ozone, from a medical and sanitary point of view, have led to the invention of several methods—electrical and chemical—of producing it for use as a deodorizing and purifying agent. The most recent system is that of Lieutenant Poulsen, a Danish officer, whose apparatus is of a simple and efficient character. It consists of a wide-necked glass jar, with a double cover of porcelain plates, finely perforated. The upper plate closes in the mouth of the jar, whilst the lower one is inserted in the neck of the jar, about two inches below the other. Through the centre of each of these covers a glass rod passes, terminating at the lower end (which is curved upwards) in a small cup for holding a piece of phosphorus. In the jar is placed a given quantity of acidulated water, the level of which is just above the cup containing the phosphorus, which, when the apparatus is not in action, is always submerged. A small quantity of permanganate of potash is added to the acid solution, and to produce ozone the phosphorus is raised, by means of the glass rod, just to the surface of the water. The chemical action of the system is as follows: Phosphorous acid in the form of fumes is produced by the contact of the phosphorus with the air, and the fumes are seen to rise to a certain height, when they are deflected down upon the solution, into which they are absorbed, and converted into phosphoric acid by being oxidized by the permanganate of potash. In the meantime ozonified oxygen is produced, and, passing out through the perforations in the covers, is distributed in the atmosphere. The first cost of the apparatus is small, and the acid bath only requires renewing about once in three months. The system has been in satisfactory use for some time past in hospitals in Denmark and France. It is employed in the Pasteur Institute, Paris, and in carrying out his experiments on the antiseptic properties of ozone Dr. J. de Christmas, of that institute, used the Poulsen apparatus, and reports very highly of its efficiency. The ozone produced is pure, as is certified by Professor P. Stein, of the Analytical Chemical Laboratory, Copenhagen. — *Foreign and Colonial Importer.*

Boro-Salicylate of Soda.

By M. F. Adams.

The author finds that by boiling together boric acid and salicylate of soda with water under an inverted condenser a syrupy liquid is obtained which does not become solid on cooling, and which, when evaporated on plates, leaves a transparent amorphous residue, which, on more complete desiccation, is transformed into an opaque mass. This borosalicylate of soda dissolves in four parts of cold water, and in its own weight of water at 40° C. The body is a true compound and not a mechanical mixture, for it does not act upon litmus nor with the ordinary reagents for boric or salicylic acids.

The acid correspondiug to the soda compound does not exist in the free state, for when the salt is treated with an acid a mixture of boric and salicylic acids is obtained.—*Manufacturing Chemist.*

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25 CTS. **PISO'S CURE FOR** CONSUMPTION 25 CTS.
CURES WHERE ALL ELSE FAILS. Best Cough Syrup. Tastes Good. Use in time. Sold by druggists.

I use PISO'S Cure for Consumption both in my family and practice. —Dr. G. W. PATTERSON, Inkster, Mich., Nov. 5, 1894.

PISO

The BEST Cough Medicine is PISO'S CURE FOR CONSUMPTION. Children take it without objection. By all druggists. 25c.

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CURES WHERE ALL ELSE FAILS. Best Cough Syrup. Tastes Good. Use in time. Sold by druggists.

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Castor Oil
Paris Green
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DIRECTIONS for the preparation of perfumes and toilet articles, with detailed formulæ and useful advice regarding labels, bottles, and putting up. Special information also included relative to new and rare drugs and compounds now used in the manufacture of perfumery.

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Any of these books will be furnished post free, on receipt of price, by the **CANADIAN DRUGGIST**, Toronto, Ontario.

Photographic Notes

WATERTIGHT COATING FOR WOODEN DISHES.

Brown resin.....8 ozs.
Beeswax.....2 ozs.

Melt together in a tin pan, and, when quite fluid, coat the dish, which should be quite dry and warm.

BLACK VARNISH.

Benzole.....10 ozs.
Turpentine.....1 oz.
Masticated rubber heated to fusing.....100 grs.

Dissolve the rubber in the benzole and turpentine, and then add 4 ounces of asphaltum broken into small pieces.—*Photogram.*

WAXING SOLUTION.

Before squeegeeing prints on to glass to obtain a brilliant surface it is usual to give the glass a rub with a solution of wax. A superior preparation is :

Spermaceti .....3ij.
Benzine.....3x.
Dissolve.

1-oz. bottles, with directions, sell at 6d. The addition of a drop or two of citronella oil is not a disadvantage.—*Chemist and Druggist.*

TINTED MATT VARNISH FOR MASKING.

No. 1 ordinary matt varnish.
No. 2 stock color solution.
Malachite green..... 10 grains
Alcohol ..... 1 oz.

1 { No. 1 varnish..... 5 oz.
{ No. 2 color solution ..... 30 minims

2 { No. 1 varnish..... 5 oz.
{ No. 2 color solution..... 60 minims

The varnish solution retains the color for some time, but fades after prolonged keeping. It is, therefore, advisable not to prepare more than is required for a month or two's use. The varnish on the negative retains its color well.—*Photogram.*

Inexpensive Photographic Tray.

An inexpensive photographic tray or battery cell, which is practically water, acid, alkali proof, may be made out of a pasteboard box by covering it with a coating made by melting together equal parts of paraffin and gutta-percha chips. The gutta-percha should be melted first over a slow fire, the paraffin is then added, and the whole composition thoroughly mixed and brought to a fluid condition. It is then poured into the box or box cover, which should be dry and warm. The composition should be allowed to run along the edges, so that the entire inside of the box is waterproofed ; the excess is poured off, and the box is then allowed to cool. The outside should then be waterproofed in the same manner. In case any spot fails to receive the composition, some of it may be made into sticks and applied to the bare places with the aid of a hot iron, which may also be used to smooth up any unevenness of the surface. Some photographers like ridges in the tray to keep the plate off the bottom and to facilitate in lifting it out. These ridges can be easily built up with the aid of a hot iron. These pasteboard trays are light, and are not liable to be broken by a fall. Old dry-plate boxes may be utilized for this purpose. Wooden trays may be waterproofed in the same manner, and can be used for batteries if desired.—*Scientific American.*

Colors in Photography.

It has often been observed that a bright scarlet uniform will, in a good photographic dark-room with ruby-glass windows, appear perfectly white. On this subject Herr H. W. Vogel made some interesting communications to the Physical Society of Berlin at a recent meeting. Experimenting with oil lamps provided with pure red, green, and blue color screens, he found that, when white light was rigidly excluded, all sense of color disappeared to the observers, and nothing but shades of black and white could be distinguished on objects in the room. He further found that a scale of colors illuminated by red light showed the red pigments as white or gray, which abruptly turned into yellow, and not red, on adding blue light. Hence a color was perceived which was not contained in either of the sources. Red and yellow patches appeared of the same color, so that they could hardly be distinguished. But the difference was at once brought out by adding green instead of blue light. How very much the kind of sensation experienced depends upon the intensity of illumination is easily seen in the case of the region of the spectrum near the G. line of Fraunhofer. This region appears violet when its luminosity is feeble, blue when it is stronger, and may even appear bluish-white with strong sunlight, so that the assertion often made that with normal eyes a definite color-sensation corresponds to a definite wave-length cannot be upheld. Herr Vogel comes to the conclusion that our opinion as to the color of a pigment is guided by our perception of the absence of certain constituents. Thus a red substance is only recognized as such when light of other colors is admitted, and we perceive its inability to reflect these.—*Nature.* (*Pharmaceutical Journal and Transactions.*)

COPPER NOT INJURIOUS TO PLANTS.—A. Tschirch recently has repeated his previous assertion that insoluble copper compounds in the soil in no manner are injurious to vegetation. His experiments also include aquatic plants.

Wintergreen Oil.

The artificial methyl-salicylate is constantly gaining ground, although its opponents in America are doing all that lies in their power to bring it into discredit. As an instance of this, we may mention that an attempt was recently made to create a panic among the manufacturers of chewing gum, who use a considerable quantity of the oil, by spreading about a report that the use of the artificial product caused inflammation of the eyes. It was stated that the "chemicals" contained in the synthetical oil were the source of the mischief. Any one who has the least idea what so-called natural and artificial wintergreen oils are will at once agree with us that such statements are the outcome of crass ignorance.

According to the new U.S.P., both the genuine wintergreen oil—which is hardly to be met with any longer in commerce—and the oil prepared from sweet birch, consist almost entirely of methyl-salicylate, presupposing always that both are pure, and not, as is frequently the case, adulterated. Now, can there be any doubt that methyl-salicylate is the only active constituent of both oils? If, then, in view of the fact that the two natural oils are scarcely to be met with in commerce in a state of reliable purity, a pure methyl-salicylate, prepared from pure salicylate acid as used daily in medicine—that is to say, a product of definite chemical composition, $CH_3C_7H_5O_3$—is recommended, the question arises : How is it possible that any one with the least inkling of chemistry can talk of "noxious chemicals" which are said to be present in wintergreen oil. It is impossible to argue against such foolish assertions as are palmed off upon the American consumer. —*Schimmel's Report.*

The Metric System in England.

The metric system is again in the air. Two parties are bringing it before our attention—the one attempting to bring about its legal use in export trading, the other its introduction into the British Pharmacopœia. . . . The whole question of the adoption of metric weights and measures in this country is one in which most people, even of the educated classes, take a very lazy interest. We see no signs of anything approaching a general desire among these for the everyday use of the gramme, metre, etc. Indeed, we must confess that for general trading in Great Britain no practical benefit would be derived from the use of the metric system. . . . There is a factor in the question which would tell against the champions of the metric system, and which has been often left out of consideration. The metric system sounds wonderfully logical and simple, but any teacher of pharmacy could tell of the amazing difficulty found in getting students to understand it thoroughly. The difficulty is chiefly seen in students working calculations in cubic

measure. Our measures of capacity, though not related to the measures of weight in the way in which in the cubic centimetre is, are very simple, being small multiples of each other. You cannot muddle one, not a hopeless dunce, on the number of pints in a gallon ; but we have seen fairly intelligent men at sea when asked how many cubic decimetres there are in a cubic metre. The cubic measure is the source of difficulty here. If we were to measure in common transactions by cubic inches, there would be the same difficulty. This, of course, would not apply where multiples and fractions of a litre were used, but it shows how objection would be raised to the exclusive use of the metric system in the B.P. Whilst thus setting forth an objection to the system which seems to have been little noticed, we do not thereby indicate our wish that the metric system should not be used in the next edition of the Pharmacopœia. We only desire to bring up the obstacles in its way.—*British and Colonial Druggist.*

Therapeutic Serums.

The following is the text of the law in France relating to the preparation, sale, and distribution of therapeutic serums and otheranalogous products, promulgated on the 25th of April last :

Article 1. Attenuated virus, therapeutic serums, modified toxines, and analogous products that may be used for the prophylaxy or therapy of contagious diseases, and injectable substances of organic origin not defined chemically, that are applied to the treatment of temporary or chronic affections, shall not be distributed gratuitously or otherwise unless their manufacture or place of origin shall have been the object of an authorization of the government given with the sanction of the Consulting Committee of Hygiene of France and of the Academy of Medicine. Such authorization shall be temporary and revocable. The said products shall be submitted to the inspection of a commission appointed by a competent minister.

Article 2. These products shall be delivered to the public by a pharmacist upon medical prescription. Each bottle or receptacle shall bear the mark of its place of origin and the date of its manufacture. In urgent cases physicians are authorized to furnish their patients with the said products.

When the said products are destined to be delivered gratuitously to the poor the vials containing these products shall bear, stamped upon the glass, the words, "Public Assistance—Free." They may then be deposited, under the control of a physician, at such public establishments as may be authorized by the administrator to procure these products direct.

The foregoing provisions shall not apply to Jennerian vaccine, either human or animal.

Article 3. The sale and distribution of the substances mentioned in Article 1 shall be regulated by and come within the provisions of Article 423 of the Penal Code and of the law of the 27th of March, 1871. Any fraud as to the nature of the said substances, knowing them to be falsified or adulterated, or any fraud or attempt at fraud in regard to the quality of the article delivered will be punishable in accordance with the provisions of Article 423 of the Penal Code and of the law of the 27th of March, 1871.

Article 4. Any infraction of the present law will be punished with a fine of from 16 to 1,000 francs.

Salts of Potash.

The consolidated industries which mainly supply Europe and America with the various salts of potash are located in an alluvial plain west of the River Elbe, and to the south and southwest of Magdeburg, in the province of Saxony. This mineral region is bounded on the south and west by the Hartz mountains, and for many centuries it was worked as a source of common salt, which was obtained by evaporating the natural brine, pumped up from driven wells that reached only to the upper stratum of the vast deposit. This deposit is now known to have a thickness of nearly 5,000 feet, and is estimated to have been not less than fifteen thousand years in process of formation.—*Foreign and Colonial Importer.*

The Columbia Chemical Works, of Brooklyn, N.Y., write us that the words "Household Ammonia" were registered as their trade mark in Canada, May 11th, 1886. As they believe some dealers in this country are selling preparations under this name, presumably in ignorance of its being copyrighted, they desire to warn them that such infringements will be prosecuted if their manufacture and sale is not abandoned.

Carotin has been discovered by Schrotter in the arillus of the fruit of aspelia luangensis. Schrotter suggests (*Zeit. All. Oest. Apoth.*) the generic name lipoxanthin for all yellow vegetable-coloring principles.

To preserve fresh lemons it is suggested to rub them over thoroughly with a wad saturated with paraffin oil and then to wrap them in tin foil.

A Natural Toothache Gum.—The natives of west Africa use the gum from an undetermined species of combretum as a remedy for toothache. A decoction of the root of the same tree, which is known to the natives as "topp," is used as a remedy in gastralgia.

Bleached wax is now made by reducing the beeswax to powder instead of drawing out into fine threads previous to exposure to light and moisture. To produce the powder the liquefied wax is sprayed, by suitable means, into cold water.

Business Notices.

As the design of the Canadian Druggist is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the Canadian Druggist.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the *special consideration* of the Business Notices.

Gananoque, April 10th, 1895.

To Dr. Hamill, Toronto.

Dear Doctor,—Allow me to say that only one like myself can appreciate the great benefit a course of optics with you really is. Instead of now guessing what spectacles my patrons require, the whole subject has been so cleared up that I think I can now go about fitting intelligently, with a certainty of results sure to please the buyer as well as the seller.

I shall be glad to give any information to any one writing me about the course you give.

Yours truly,
G. N. Asselstine.

Orangeville, April 26th, 1895.

Dr. Hamill, Toronto.

Dear Sir,—In reference to the course in optics and refraction I took with you, all I can say is that I was more than pleased that any one of my age should be able to pick up the science so quickly and thoroughly. Your method of teaching is so simple, and yet so complete, that I have no hesitation in stating that any one with ordinary intelligence can, in two weeks under your instruction and guidance, fit spectacles correctly. I would not have missed the course for twice the cost.

Yours truly,
John C. Fox.

P.S.—Should you wish to refer any one to me, I shall be pleased to give them my opinion of your ability as a teacher of optics.—J.C.F.

Brussels, Ont., April 16th, 1895.

To Dr. Hamill, Toronto.

Dear Doctor,—I wish to express my gratitude for the very thorough manner in which you imparted the theory and practical working of fitting spectacles. When I commenced with you, I knew absolutely nothing about spectacles, and, after a two weeks' course under your teaching, I find it very easy to suit customers who before puzzled me entirely.

I shall not fail to recommend your course to any one who may ask me about refraction.

Yours truly,
H. J. McNaughton.

An old-established drug business for sale in a good Western town ; proprietor retiring from business. Apply to "W.," care of Canadian Druggist.

Situation wanted, by drug clerk. Four years' experience. Good, sound Telegraph Operator. Can furnish best of references. Address, Fred Cable, Delhi, Ont.

4 and 8 oz. Toilet Water.

SEELY The American PERFUMER

NEW PERFUMES:

SWEET MIGNONETTE,
LILLIAN RUSSELL,
MARIPOSA LILY,
MAGNOLIA BLOSSOM.

These new products of our laboratory are very lasting and fragrant.

TOILET WATER ASSORTMENT

VIOLET
ROSE
HELIOTROPE
LAVENDER
ORANGE
LILAC
MAGNOLIA

Seely Manufacturing Company,

DETROIT, MICHIGAN. *ESTABLISHED IN 1862.* *WINDSOR, ONTARIO.*

CANADIAN DRUGGIST PRICES CURRENT

Corrected to May 10th, 1895.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal	$4 37	$4 65
Methyl	1 90	2 00
ALLSPICE, lb	13	15
Powdered, lb	15	17
ALOIN, oz	40	45
ANODYNE, Hoffman's bot., lbs	50	55
ARROWROOT, Bermuda, lb	45	50
St. Vincent, lb	15	18
BALSAM, Fir, lb	40	45
Copaiba, lb	65	75
Peru, lb	3 75	4 00
Tolu, can or less, lb	65	75
BARK, Barberry, lb	22	25
Bayberry, lb	15	18
Buckthorn, lb	15	17
Canella, lb	15	17
Cascara, Sagrada	25	30
Cascarilla, select, lb	18	20
Cassia, in mats, lb	18	20
Cinchona, red, lb	60	65
Powdered, lb	65	70
Yellow, lb	35	40
Pale, lb	40	45
Elm, selected, lb	20	21
Ground, lb	17	20
Powdered, lb	20	28
Hemlock, crushed, lb	18	20
Oak, white, crushed lb	15	17
Orange peel, bitter, lb	15	16
Prickly ash, lb	35	40
Sassafras, lb	15	16
Soap (quillaya), lb	13	15
Wild cherry, lb	13	15
BEANS, Calabar, lb	45	50
Tonka, lb	1 50	2 75
Vanilla, lb	6 00	7 50
BERRIES, Cubeb, sifted, lb	30	35
powdered, lb	35	40
Juniper, lb	7	10
Ground, lb	12	14
Prickly ash, lb	40	45
BUDS, Balm of Gilead, lb	55	60
Cassia, lb	25	30
BUTTER, Cacao, lb	75	80
CAMPHOR, lb	62	70
CANTHARIDES, Russian, lb	1 40	1 50
Powdered, lb	1 50	1 60
CAPSICUM, lb	25	30
Powdered, lb	$ 30	35
CARBON, Bisulphide, lb	17	18
CARMINE, No. 40, oz	40	50
CASTOR, Fibre, lb	20 00	20 00
CHALK, French, powdered, lb	10	12
Precip., see Calcium, lb	10	12
Prepared, lb	5	6
CHARCOAL, Animal, powd., lb	4	5
Willow, powdered, lb	20	25
CLOVE, lb	16	17
Powdered, lb	17	18
COCHINEAL, S.G., lb	40	45
COLLODION, lb	75	80
Cantharidal, lb	2 50	2 75
CONFECTION, Senna, lb	40	45
Creosote, Wood, lb	2 00	2 50
CUTTLEFISH BONE, lb	25	30
DEXTRINE, lb	10	12
DOVER'S POWDER, lb	1 50	1 60
ERGOT, Spanish, lb	75	80
Powdered, lb	90	1 00
Ergotin, Keith's, oz	2 00	2 10
EXTRACT, Logwood, bulk, lb	13	14
Pounds, lb	14	17
FLOWERS, Arnica, lb	15	20
Calendula, lb	55	60
Chamomile, Roman, lb	30	35
German, lb	40	45
Elder, lb	20	22
Lavender, lb	12	15
Rose, red, French, lb	1 60	2 00
Rosemary, lb	25	30
Saffron, American, lb	75	80
Spanish, Val'a, oz	1 00	1 25
GELATINE, Cooper's, lb	75	80
French, white, lb	35	40
GLYCERINE, lb	16	18
GUARANA	3 00	3 25
Powdered, lb	3 25	3 50
GUM ALOES, Cape, lb	18	20
Barbadoes, lb	30	50
Socotrine, lb	65	70
Asafœtida, lb	40	45
Arabic, 1st, lb	65	70
Powdered, lb	75	85
Sifted sorts, lb	40	45
Sorts, lb	25	30
Benzoin, lb	50	1 00
Catechu, Black, lb	9	20
Gamboge, powdered, lb	1 20	1 25
Guaiac, lb	50	1 00
Powdered, lb	70	75
Kino, true, lb	1 25	
Myrrh, lb	$ 45	$ 48
Powdered, lb	55	60
Opium, lb	3 75	3 80
Powdered, lb	5 50	5 75
Scammony, pure Resin, lb	12 80	13 00
Shellac, lb	45	48
Bleached, lb	45	50
Spruce, true, lb	30	35
Tragacanth, flake, 1st, lb	90	1 00
Powdered, lb	1 10	1 15
Sorts, lb	45	75
Thus, lb	8	10
HERB, Althea, lb	27	30
Bitterwort, lb	27	30
Burdock, lb	16	18
Boneset, ozs, lb	15	17
Catnip, ozs, lb	17	20
Chiretta, lb	25	30
Coltsfoot, lb	20	38
Feverfew, ozs, lb	53	55
Grindelia robusta, lb	45	50
Horehound, ozs., lb	17	20
Jaborandi, lb	45	50
Lemon Balm, lb	38	40
Liverwort, German, lb	38	40
Lobelia, ozs, lb	15	20
Motherwort, ozs., lb	20	22
Mullein, German, lb	17	20
Pennyroyal, ozs., lb	18	20
Peppermint, ozs., lb	21	22
Rue, ozs., lb	30	35
Sage, ozs., lb	18	20
Spearmint, lb	21	25
Thyme, ozs., lb	18	20
Tansy, ozs., lb	15	18
Wormwood, oz	20	22
Yerba Santa, lb	38	44
HONEY, lb	13	15
HOPS, fresh, lb	20	25
INDIGO, Madras, lb	75	80
INSECT POWDER, lb	25	28
ISINGLASS, Brazil, lb	2 00	2 10
Russian, true, lb	6 00	6 50
LEAF, Aconite, lb	25	30
Bay, lb	18	20
Belladonna, lb	25	30
Buchu, long, lb	50	55
Short, lb	20	22
Coca, lb	35	40
Digitalis, lb	15	20
Eucalyptus, lb	18	20
Hyoscyamus	20	25
Matico, lb	70	75

Senna, Alexandria, lb	$ 25	$ 30
Tinnevelly, lb	15	25
Stramonium, lb	20	25
Uva Ursi, lb	15	18
LEECHES, Swedish, doz	1 00	1 10
LICORICE, Solazzi	45	50
Pignatelli	35	40
Grasso	30	35
Y & S—Sticks, 6 to 1 lb., per lb.	27	30
" Purity, 100 sticks in box	75	75
" Purity, 200 sticks in box	1 50	1 50
" Acme Pellets, 5 lb. tins	2 00	2 00
" Lozenges, 5 lb. tins	1 50	1 75
" Tar, Licorice, and Tolu, 5 lb. tins	2 00	2 00
LUPULIN, oz	30	35
LYCOPODIUM, lb	70	80
MACE, lb	1 20	1 25
MANNA, lb	1 60	1 75
Moss, Iceland, lb	9	10
Irish, lb	9	10
MUSK, Tonquin, oz	46 00	50 00
NUTGALLS, lb	21	25
Powdered, lb	25	30
NUTMEGS, lb	1 00	1 10
NUX VOMICA, lb	10	12
Powdered, lb	25	27
OAKUM, lb	12	15
OINTMENT, Merc., lb. ½ and ½.	70	75
Citrine, lb	45	50
PARALDEHYDE, oz	15	18
PEPPER, black, lb	22	25
Powdered, lb	25	30
PITCH, black, lb	3	4
Bergundy, true, lb	10	12
LASTER, Calcined, bbl. cash	2 25	3 25
Adhesive, yd	12	13
Belladonna, lb	65	70
Galbanum Comp., lb	80	85
Lead, lb	25	30
POPPY HEADS, per 100	1 00	1 10
ROSIN, Common, lb	2½	3
White, lb	3½	4
RESORCIN, white, oz	25	30
ROCHELLE SALT, lb	25	28
ROOT, Aconite, lb	22	25
Althea, cut, lb	30	35
Belladonna, lb	25	30
Blood, lb	15	16
Bitter, lb	27	30
Blackberry, lb	15	18
Burdock, crushed, lb	18	20
Calamus, sliced, white, lb	20	25
Canada Snake, lb	30	35
Cohosh, black, lb	15	20
Colchicum, lb	40	45
Columbo, lb	20	22
Powdered, lb	25	30
Coltsfoot, lb	38	40
Comfrey, crushed, lb	20	25
Curcuma, powdered, lb	13	14
Dandelion, lb	15	18
Elecampane, lb	15	20
Galangal, lb	15	18
Gelsemium, lb	22	25
Gentian or Genitan, lb	9	10
Ground, lb	10	12
Powdered, lb	13	15
Ginger, African, lb	18	20
Po., lb	20	22
Jamaica, blchd., lb	27	30
Po., lb	30	35
Ginseng, lb	3 00	3 25
Golden Seal, lb	75	80
Gold Thread, lb	90	95
Hellebore, white, powd., lb	12	15
Indian Hemp	18	20
Ipecac, lb	1 30	1 50
Powdered, lb	1 60	1 70
Jalap, lb	55	60
Powdered, lb	60	65
Kava Kava, lb	40	90
Licorice, lb	12	15
Powdered, lb	13	15
Mandrake, lb	13	18
Masterwort, lb	16	40
Orris, Florentine, lb	30	35
Powdered, lb	40	45
Pareira Brava, true, lb	40	45
Pink, lb	75	80
Parsley, lb	30	35
Pleurisy, lb	20	25
Poke, lb	15	18
Queen of the Meadow, lb	$ 18	$ 20
Rhatany, lb	20	30
Rhubarb, lb	75	2 50
Sarsaparilla, Hond, lb	40	45
Cut, lb	50	55
Senega, lb	55	65
Squill, lb	13	15
Stillingia, lb	22	25
Powdered, lb	25	27
Unicorn, lb	38	40
Valerian, English, lb. true	20	25
Virginia, Snake, lb	40	45
Yellow Dock, lb	15	18
RUM, Bay, gal	2 25	2 50
Essence, lb	3 00	3 25
SACCHARIN, oz	1 25	1 50
SEED, Anise, Italian, sifted, lb	13	15
Star, lb	35	40
Burdock, lb	30	35
Canary, bag or less, lb	5	6
Caraway, lb	10	13
Cardamom, lb	1 25	1 50
Celery	30	35
Colchicum	50	60
Coriander, lb	10	12
Cumin, lb	15	20
Fennel, lb	15	17
Fenugreek, powdered, lb	7	9
Flax, cleaned, lb	3½	4
Ground, lb	4	5
Hemp, lb	5	6
Mustard, white, lb	11	12
Powdered, lb	15	20
Pumpkin	25	30
Quince, lb	65	70
Rape, lb	8	9
Strophanthus, oz	50	55
Worm, lb	22	25
SEIDLITZ MIXTURE, lb	25	30
SOAP, Castile, Mottled, pure, lb	10	12
White, Conti's, lb	15	16
Powdered, lb	25	35
Green (Sapo Viridis), lb	15	25
SPERMACETI, lb	55	60
TURPENTINE, Chian, oz	75	80
Venice, lb	10	12
WAX, White, lb	50	75
Yellow	40	45
WOOD, Guaiac, rasped	5	6
Quassia chips, lb	10	12
Red Saunders, ground, lb	5	6
Santal, ground, lb	5	6

CHEMICALS.

ACID, Acetic, lb	12	13
Glacial, lb	45	50
Benzoic, English, oz	20	25
German, oz	10	12
Boracic, lb	15	16
Carbolic Crystals, lb	25	30
Calvert's No. 1, lb	2 10	2 15
No. 2, lb	1 35	1 40
Citric, lb	50	55
Gallic, oz	10	12
Hydrobromic, diluted, lb	30	35
Hydrocyanic, diluted, oz. bottles doz	1 50	1 60
Lactic, concentrated, oz	22	25
Muriatic, lb	3	5
Chem, pure, lb	18	20
Nitric, lb	10½	13
Chem. pure, lb	25	30
Oleic, purified, lb	75	80
Oxalic, lb	12	13
Phosphoric, glacial, lb	1 00	1 10
Dilute, lb	13	17
Pyrogallic, oz	35	38
Salicylic, white, lb	1 00	1 10
Sulphuric, carboy, lb	2½	2¾
Bottles, lb	5	6
Chem. pure, lb	18	20
Tannic, lb	90	1 10
Tartaric, powdered, lb	30	32
ACETANILID, lb	90	1 00
ACONITINE, grain	4	5
ALUM, cryst., lb	1¾	3
Powdered, lb	3	4
AMMONIA, Liquor, lb., .880	8½	10
AMMONIUM, Bromide, lb	80	85
Carbonate, lb	14	15
Iodide, oz	35	40
Nitrate, crystals, lb	40	45
Muriate, lb	12	16
Valerianate, oz	$ 55	$ 60
AMYL, Nitrite, oz	16	18
ANTINERVIN, oz	85	00
ANTIKAMNIA	1 25	1 30
ANTIPYRIN, oz	1 00	1 10
ARISTOL, oz	1 85	2 00
ARSENIC, Donovan's sol., lb	25	30
Fowler's sol., lb	13	15
Iodide, oz	50	55
White, lb	6	7
ATROPINE, Sulp. in ⅛ ozs. 80c., oz	5 00	5 00
BISMUTH, Ammonia-citrate, oz	35	40
Iodide, oz	50	55
Salicylate, oz	30	35
Subcarbonate, lb	2 25	2 40
Subnitrate, lb	2 00	2 10
BORAX, lb	7	8
Powdered, lb	8	9
BROMINE, oz	8	13
CADMIUM, Bromide, oz	20	25
Iodide, oz	45	50
CAFFEINE, oz	50	55
Citrate, oz	50	55
CALCIUM, Hypophosphite, lb	1 50	1 60
Iodide, oz	95	1 00
Phosphate, precip., lb	35	38
Sulphide, oz	5	6
CERIUM, Oxalate, oz	10	12
CHINOIDINE, oz	15	18
CHLORAL, Hydrate, lb	1 15	1 20
Croton, oz	75	80
CHLOROFORM, lb	60	1 90
CINCHONINE, sulphate, oz	25	30
CINCHONIDINE, Sulph., oz	15	20
COCAINE, Mur., oz	7 50	8 50
CODEIA, ⅛ oz	80	90
COLLODION, lb	65	70
COPPER, Sulph., (Blue Vitriol) lb.	5	6
Iodide, oz	65	70
COPPERAS, lb	1	3
DIURETIN, oz	1 60	1 65
ETHER, Acetic, lb	75	80
Sulphuric, lb	40	50
EXALGINE, oz	1 00	1 10
HYOSCYAMINE, Sulp., crystals, gr.	25	30
IODINE, lb	4 75	5 50
IODOFORM, lb	6 00	7 00
IODOL, oz	1 40	1 50
IRON, by Hydrogen	80	85
Carbonate, Precip., lb	15	16
Sacch., lb	30	35
Chloride, lb	45	55
Sol., lb	13	16
Citrate, U.S.P., lb	90	1 00
And Ammon., lb	70	75
And Quinine, lb	1 50	3 00
Quin. and Stry., oz	18	30
And Strychnine, oz	13	15
Dialyzed, Solution, lb	50	55
Ferrocyonide, lb	55	60
Hypophosphites, oz	25	30
Iodide, oz	40	45
Syrup, lb	40	45
Lactate, oz	5	6
Pernitrate, solution, lb	15	16
Phosphate scales, lb	1 25	1 30
Sulphate, pure, lb	7	9
Exsiccated, lb	8	10
And Potass. Tartrate, lb	80	85
And Ammon Tartrate, lb	80	85
LEAD, Acetate, white, lb	13	15
Carbonate, lb	7	8
Iodide, oz	35	40
Red, lb	7	9
LIME, Chlorinated, bulk, lb	4	5
In pakages, lb	6	7
LITHIUM, Bromide, oz	30	35
Carbonate, oz	30	35
Citrate, oz	25	30
Iodide, oz	50	55
Salic ate, oz	35	40
MAGNESIUM, Calc., lb	55	60
Carbonate, lb	18	20
Citrate, gran., lb	35	40
Sulph. (Epsom salt), lb	1¾	3
MANGANESE, Black Oxide, lb	5	7
MENTHOL, oz	55	66
MERCURY, lb	75	80
Ammon (White Precip.)	1 25	1 30
Chloride, Corrosive, lb	1 00	1 10
Calomel, lb	1 00	1 10
With Chalk, lb	60	65

A "Reel Comfort."—Have you seen the new fly catcher advertised in this issue, and which, it is claimed, is superior to anything in that line offered? The Canadian agents are Lyman Brothers & Co., Toronto.

A Favorite Brand.—We would direct the attention of the trade to the advertisement of John Labatt, in this issue. Labatt's ale and stout are known throughout Canada as one of the leading brands, and they are specially adapted to the use of invalids and convalescents, and are highly endorsed by the medical faculty. The favor with which they are regarded abroad is shown by the high awards extended to them at the various exhibitions of note. They received the highest award at the World's Fair at Chicago in 1893, the gold medal at the Midwinter Exposition in San Francisco in 1894, besides eight other gold, silver, and bronze medals at the world's great exhibitions.

A Seasonable Request to Druggists in Sheep Districts.

We respectfully ask every druggist to send us at once a list of all owners of sheep in his district, to whom we promise to mail a pamphlet on Sheep Dipping and the Cooper Dip, with his name appended. This never fails to start a demand. A supply of attractive literature will also be sent to the druggist, free of all charge, with his name on.

The Cooper Dip has been the leading dip of the world for fifty years. It is exclusively supplied to the British Government, used on the Royal estates, and endorsed by the Canadian Minister of Agriculture. It is a scientific preparation, highly manufactured, and essentially a druggist's article. It is a concentrated powder compressed into packets, clean, non-combustible, non-corrosive; in fact, a perfect stock article. No deterioration by time or climate possible. Vastly superior to every other. Mail list at once to catch the season to

WILLM. COOPER & NEPHEWS,
Cooper Dip Depot,
Galveston, Texas.

Inquire prices to the trade of Evans & Sons, Ltd., Montreal and Toronto, general agents for the Dominion of Canada.

Books and Magazines.

Frederick Stearns & Co., Detroit, Mich., have issued a treatise on "Wine of Cod-liver Oil," embodying the indorsements of some leading practitioners of this preparation. As is quite naturally the case, the favor with which it has been received has stirred up opposition from rival manufacturers; but the substantiation of its claims, as the result of its use by the medical profession, proves it an article of undoubted merit. A copy of this treatise will be sent free to any applicant.

The Wild Flowers of Canada.—This Dominion will soon be covered with wild flowers as with a carpet. It is interesting to hear that splendid prizes are to be given to those who know the wild flowers of Canada by name, form, and color. European and American judges of floral nature say Canadians should be so carried away with the beauty of their own native bloom as to ensure an acquaintance with the wild flowers of Canada by every man, woman, boy, and girl in the Dominion. In this connection the Montreal *Star* is coming in for much praise for a splendid work it is publishing, entitled "The Wild Flowers of Canada," in portfolio form, sixteen flowers in each portfolio, three hundred plates in all, natural colors and natural size, the whole forming an invaluable treasure for the library. For a limited time these valuable portfolios may be obtained from the Montreal *Star* or local newsdealers at fifteen cents each. Amazingly cheap.

Rudyard Kipling to Revisit India.—Much interest will be felt by the public in the return of Rudyard Kipling to India. He has just agreed to furnish a regular contribution to *The Cosmopolitan Magazine* for the coming year, beginning his work upon his return to India. India has never been critically considered by such a pen as Kipling's, and what he will write for *The Cosmopolitan* will attract the widest attention, both here and in England. Perhaps the most beautiful series of pictures ever presented of the Rocky Mountains will be found in a collection of fourteen original paintings, executed by Thomas Moran for the May *Cosmopolitan*. To those who have been in the Rockies, this issue of *The Cosmopolitan* will be a souvenir worthy of preservation. This number contains fifty-two original drawings, by Thomas Moran, Oliver Herford, Dan Beard, H. M. Eaton, F. G. Attwood, F. O. Small, F. Lix, J. H. Dolph, and Rosina Emmett Sherwood, besides six reproductions of famous recent works of art, and forty other interesting illustrations — ninety-eight in all. Though *The Cosmopolitan* sells for but fifteen cents, probably no magazine in the world will present for May so great a number of illustrations specially designed for its pages by famous illustrators. The fiction in this number is by F. Hopkinson Smith, Gustav Kobbé, W. Clark Russell, Edgar W. Nye, and T. C. Crawford.

The Work of Albert Lynch.—Albert Lynch, whose work is becoming so much more generally known to Americans through his drawings in *Scribner's Magazine*, and his cover designs for *The Ladies' Home Journal*, is a Peruvian by birth, but of English parentage. He is only thirty-three years of age, and of extremely retiring disposition. He is unmarried, and lives in Paris. The young artist commands the highest prices for his work, his smallest water-color paintings readily selling for $600 to $900 each. In 1893 he received the Salon's first prize for his beautiful panel of "Spring," showing a single figure. This picture won the admiration of the French art critics and the public to such an unusual degree that the painting was sold for a fabulous sum to a private Paris buyer. Recently *The Ladies' Home Journal* acquired all publication rights to this painting, and it will serve as one of the cover designs for that magazine. The next issue of the *Journal* will also have a design by Lynch, portraying his conception of a woman's ideal costume. A succession of other cover designs by Lynch will follow these two.

The Delineator for May contains: Dance of the Nymphs, Equestrian Costumes, Artistic Housefurnishing, Commencement Costumes, Fashionable Skirt Decorations, Fashionable Millinery, Stylish Lingerie, Ladies' Fashions, Misses' and Girls' Fashions, Little Folk's Fashions, Boys' Fashions, Illustrated Miscellany, Fancy Stitches and Embroideries, Fashionable Dress Goods, Novelties in Wash Fabrics, Fashionable Garnitures, Stylish Millinery, Tatting (illustrated), Crocheting (illustrated), The Art of Knitting (illustrated), Around the Tea-table, Crêpe and Tissue Papers, Oberlin (College series), Mayers and Lay Games, The Voice, Modern Lace-making, Venetian Ironwork, The Home, Seasonable Cookery, Experiences of a Training School, Life (No. III.), The Social Code (No. III.), How to be Well, Burnt Work (Part III.), Government Clerkships, Kindergarten Papers (No. IX.), Preservation and Renovation (No. II.), The Dressmaker and Milliner, Answers to Correspondents.

Crystallose is the name of a soluble sodium salt of saccharin. This substance is reported to be 400 times sweeter than sugar.

Drug Reports.

Canada.

Glycerine is higher, and stocks low.

Camphor has advanced about four cents.

Cream of tartar has advanced.

All tinctures advanced from three to five cents a pound, according to the proportion of alcohol.

Perfumery has also advanced.

Imported confectionery advanced one-half cent per pound.

Mercurials are advancing.

Caffeine is abnormally high in the foreign markets.

Opium is easy, and the prospects of a large crop check any tendency towards an advance.

Alcohol, on account of new duty, is higher; $4.60 in five gallon lots is being asked, being an advance of about forty cents.

Iodide, Proto, oz	$ 35	$ 40
Bin., oz	25	30
Oxide, Red, lb	1 15	1 20
Pill (Blue Mass), lb	70	75
MILK SUGAR, powdered, lb	30	35
MORPHINE, Acetate, oz	2 00	2 10
Muriate, oz	2 00	2 10
Sulphate, oz	1 75	1 80
PEPSIN, Saccharated, oz	35	40
PHENACETINE, oz	35	38
PILOCARPINE, Muriate, grain	20	22
PIPERIN, oz	1 00	1 10
PHOSPHORUS, lb	90	1 10
POTASSA, Caustic, white, lb	55	60
POTASSIUM, Acetate, lb	35	40
Bicarbonate, lb	15	17
Bichromate, lb	14	15
Bitrat (Cream Tart.), lb	22	25
Bromide, lb	55	60
Carbonate, lb	12	13
Chlorate, Eng., lb	18	20
Powdered, lb	20	22
Citrate, lb	70	75
Cyanide, lb	40	50
Hypophosphites, oz	10	12
Iodide, lb	4 00	4 10
Nitrate, gran, lb	8	10
Permanganate, lb	40	45
Prussiate, Red, lb	50	55
Yellow, lb	32	35
And Sod. Tartrate, lb	25	30
Sulphuret, lb	25	30
PROPLYLAMINE, oz	35	46
QUININE, Sulph, bulk	30	32
Ozs., oz	36	40
QUINIDINE, Sulphate, ozs., oz	16	20
SALICIN, lb	3 75	4 00
SANTONIN, oz	20	22
SILVER, Nitrate, cryst, oz	90	1 00
Fused, oz	1 00	1 10
SODIUM, Acetate, lb	30	35
Bicarbonate, kgs., lb	2 75	3 00
Bromide, lb	63	65
Carbonate, lb	3	6
Hypophosphite, oz	10	12
Hyposulphite, lb	3	6
Iodide, oz	$ 40	$ 43
Salicylate, lb	1 75	1 80
Sulphate, lb	2	5
Sulphite, lb	8	10
SOMNAL, oz	85	00
SPIRIT NITRE, lb	35	65
STRONTIUM, Nitrate, lb	18	20
STRYCHNINE, crystals, oz	1 00	1 10
SULFONAL, oz	34	35
SULPHUR, Flowers of, lb	2½	4
Pure precipitated, lb	13	20
TARTAR EMETIC, lb	50	55
THYMOL (Thymic acid), oz	55	60
VERATRINE, oz	2 00	2 10
ZINC, Acetate, lb	70	75
Carbonate lb	25	30
Chloride, granular, oz	13	15
Iodide, oz	60	65
Oxide, lb	13	60
Sulphate, lb	9	11
Valerianate, oz	25	30
ESSENTIAL OILS.		
OIL, Almond, bitter, oz	75	80
Sweet, lb	50	60
Amber, crude, lb	40	45
Rec't, lb	60	65
Anise, lb	3 00	3 25
Bay, oz	50	60
Bergamot, lb	3 75	4 00
Cade, lb	90	1 00
Cajuput, lb	1 60	1 70
Capsicum, oz	60	65
Caraway, lb	2 75	3 00
Cassia, lb	1 75	1 80
Cedar	55	85
Cinnamon, Ceylon, oz	2 75	3 00
Citronelle, lb	80	85
Clove, lb	1 00	1 10
Copaiba, lb	1 75	2 00
Croton, lb	1 50	1 75
Cubeb, lb	2 50	3 00
Cumin, lb	5 50	6 00
Erigeron, oz	20	25
Eucalyptus, lb	1 50	1 75
Fennel, lb	1 60	1 75
Geranium, oz	$1 75	$1 80
Rose, lb	3 20	3 50
Juniper berries (English), lb	4 50	5 00
Wood, lb	70	75
Lavender, Chiris. Fleur, lb	3 00	3 50
Garden, lb	1 50	1 75
Lemon, lb	1 75	1 80
Lemongrass, lb	1 50	1 60
Mustard, Essential, oz	60	65
Neroli, oz	4 25	4 50
Orange, lb	2 75	3 00
Sweet, lb	2 75	3 00
Origanum, lb	65	70
Patchouli, oz	80	85
Pennyroyal, lb	2 50	2 75
Peppermint, lb	4 25	4 50
Pimento, lb	2 60	2 75
Rhodium, oz	80	85
Rose, oz	7 50	11 00
Rosemary, lb	70	75
Rue, oz	25	30
Sandalwood, lb	5 50	7 50
Sassafras, lb	75	80
Savin, lb	1 60	1 75
Spearmint, lb	3 75	4 00
Spruce, lb	65	70
Tansy, lb	4 25	4 50
Thyme, white, lb	1 80	1 90
Wintergreen, lb	2 75	3 00
Wormseed, lb	3 50	3 75
Wormwood, lb	4 25	4 50
FIXED OILS.		
CASTOR, lb	9	11
COD LIVER, N.F., gal	1 25	1 30
Norwegian, gal	2 00	2 10
COTTONSEED, gal	1 10	1 20
LARD, gal	90	1 00
LINSEED, boiled, gal	60	63
Raw, gal	58	61
NEATSFOOT, gal	1 00	1 10
OLIVE, gal	1 30	1 35
Salad, gal	2 25	2 40
PALM, lb	12	13
SPERM, gal	1 40	1 45
TURPENTINE, gal	60	65

The Standard Brands.
MILLIONS OF EACH BRAND Sold Annually.
'Cable Extra' 'El Padre' 'Mungo' and 'Madre e'Hijo'
S. DAVIS & SONS MONTREAL, P.Q.

"DERBY PLUG," 5 and 10 cts., "THE SMOKERS' IDEAL," "DERBY," "ATHLETE" CIGARETTES, ARE THE BEST.

D. RITCHIE & CO., - - Montreal.

Spirits nitre has advanced about five cents per pound on account of increase in value of spirit.

Naphthaline balls easier in price.

Borax is easier.

In his recent budget speech the Finance Minister announced the intention of the Government to increase the duty on alcohol by thirty-three cents per imperial gallon, making it now two dollars and thirty cents per gallon. We had trusted that the Government would have seen their way clear to lessening the duty on spirits when used in the manufacture of medicine, and in the arts. The price charged by distillers, $1.17 per gallon, is much in excess of that charged in the United States, where it may be procured in the neighborhood of thirty cents in bond. The law in the neighboring republic grants free alcohol for these purposes, when certain conditions prescribed by the Secretary of the Treasury are complied with, and, were the same allowed here, the cheapening of this class of medicinal products would be the result.

The quotations for Paris Green in the United States are from 20c. to 22½c. per pound in bulk, or from 24c. to 26c. in one-half and one-pound packages. In Canada the price is very much lower, and the retailer certainly cannot complain when comparison is made. The following are about the ruling prices here :

	Cts. per lb.
Paris Green, Extra, ½ lb. cartons	17
" " " 1 lb. "	15
" " " bulk	13
" " " " 100 lb. or over	12½
" " " " 400 to 500 lb. casks free	12

Paris Green is invariably net, due August 1st.

White Hellebore, powdered, 25 lb. boxes	12½
" " " in bbls	
" " " 1 lb. cartons, 18 lb. in case	15
Insect Powders—	
From closed Chrysanthemum flowers	28
" " " " in 25 lb. boxes	26
Moth Camphor in 1 lb. cartons, 17 cakes to lb. or ball	8
" " in assorted cartons, 12 lb. lots	7

England.

London, April 27th, 1895

Owing to Easter holidays business has been of a more restricted character. There is plenty of movement, however, in the market, and both buyers and holders appear sanguine. Cod-liver oil remains firm after the last month's relapse. Consumption is lessening, and I anticipate a further fall as the summer advances. Balsams of Peru and Tolu have advanced, and caffeine, during the last few weeks, has been run up to famine rates. Quinine is unusually firm. The recent advance in quicksilver has been followed by a slight increase in price of mercurials Tartaric acid and cream of tartar are in brisk demand, and rates have advanced. Opium is steadily tending downward, and morphia is now being offered cheaper. Cocaine has been reduced this week, but the price is still high. A further drop in salicylic acid and salicylates is by no means improbable. The petroleum boom continues, and appears to be a very strong market.

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

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Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

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New advertisements or changes to be addressed

Canadian Druggist,
20 Bay St. TORONTO, ONT.

EUROPEAN AGENCIES:

ENGLAND: Aldermary House, 60 Watling Street, London, E. C.

FRANCE: 5 Rue de la Bourse, Paris.

CONTENTS.

Canada's Interest in the Metric System.
The College Council Election Contest.
District Association Meeting.
Good Business Maxims.
A Word to the Drug Clerk.
TRADE NOTES.
Montreal Notes.
Manitoba Notes.
Prince Edward Island Notes.
Nova Scotia Notes.
Troches of Phosphorated Chocolate.
COLLEGES OF PHARMACY.—Montreal College of Pharmacy—Ontario College of Pharmacy—Pharmaceutical Association of the Province of Quebec—Bachelors of Pharmacy.
Ginger Ale and its Flavorings.
Toronto University.
Pharmacy in England.
CORRESPONDENCE.—An Apprentice's View—Answers to Correspondents.
Acknowledgments.
Luteol: A New Indicator.
The Advance in Camphor.
Self-Control.
Coloring Photographs.
Smuggling Drugs.
McDowell & Co., Limited.
Montreal Notes
Pharmacopœia Suggestions.
What Makes the Successful Pharmacist?
American Pharmaceutical Association.
Does Advertising Pay?
Window Dressing for Druggists.
The Prescription Department.
PHARMACEUTICAL NOTES.
PHARMACY ABROAD.
New Patents.
FORMULARY.
PHOTOGRAPHIC NOTES.
COMMERCIAL.
Some New Formulæ for Galenicals.
BUSINESS NOTICES.
BOOKS AND MAGAZINES.
DRUG REPORTS.

Canada's Interest in the Metric System.

Judging from expressions of many prominent pharmacists in England, there seems to be considerable difference of opinion as to the wisdom of officially recognizing the metric system in the new Imperial Pharmacopœia, and a decided objection to depart from the long-established custom of dispensing solids by weight and liquids by measure.

English methods are usually conservative, and generally none the worse for it; but when progressive thought is daily forcing upon us essential changes, then conservative policy is as useless as the stagnation which it induces.

Canadian pharmacists are satisfied with the Imperial weights and measures, and with the system of using them, but want the metric system as well; and, possibly, the giving of a few reasons why they want it will not be amiss here.

They want it because Canadian pharmacists frequently require to use it; because hundreds of Canadian college graduates secure situations in American pharmacies, where a perfect knowledge of the system is essential; because its recognition in British text-books would popularize them in Canada, and lessen the need for using American works for educational purposes; because the system is undoubtedly the scientific system of the age, and is bound to become officially recognized by us at no distant date; because in a country in which the decimal system is so universally used, the adoption of the metric, for the purpose of medicinal compounding, would be at once familiar and natural; because Canadian feeling in pharmacy, as in other things, is British, and we naturally look for British authority to be equal, if not superior, to that of any other country; because, while the adoption of the system for trade purposes is likely to be but gradual, no good reason has been offered why it should not receive official recognition for the compounding and dispensing of medicine.

It is just possible that the idea of an Imperial Pharmacopœia is more popular in the colonies than in Great Britain; but, in any case, if the work about to be authorized is to fill the design of its eminent author, then Great Britain will have to consider and act generously to that portion of the Empire which forms so conspicuous, if not so important, a part of the Greater Britain.

The College Council Election Contest.

Interest in college affairs for the present month is largely centred in the council election. In Toronto Messrs. McKenzie and Daniels are returned unopposed; Ottawa returns Mr. Watters; Peterborough, Mr. McKee; Hamilton, Mr. Spackman; Woodstock, Mr. Karn; London District, Mr. Roberts, of Parkhill; Huron, Grey, and Bruce District, Mr. Days, of Lucknow; and Mr. D'Avignon's old field will this time be represented by Mr. Scott, of Sarnia. All of these gentlemen are returned by acclamation.

No. 2 District, comprising the counties of Leeds, Frontenac, Lennox, Addington, Prince Edward, and Hastings, will this time be unrepresented until some one has been selected by the council. Mr. L. W. Yeomans, of Belleville, was nominated, but improperly, until after the date for receiving nominations was past.

No. 6 District, comprising the counties of Simcoe and York (except Toronto), and the districts of Haliburton, Algoma, Parry Sound, Muskoka, Thunder Bay, Nipissing, and Rainy River, will have to decide between her former representative, D. H. McLaren, of Barrie, and W. J. Douglas, of Collingwood.

No. 7 District, comprising the counties of Peel, Wellington, Halton, and Dufferin, will be contested by A. Turner, of Orangeville, and a former councillor, R. H. Perry, of Fergus.

No. 9 District, comprising the counties of Brant, Haldimand, and Waterloo, will

have a three-cornered contest, participated in by two druggists and a doctor, J. A. Wallace, of Brantford; Simon Snyder, of Waterloo; and Dr. Harbottle, of Burford.

So far as we are at present aware, no questions of governmental policy are entering into the contests where held. The candidates are offering themselves in a friendly manner for a position which it is creditable and honorable for any druggist to fill.

While we regret the non representation of No. 2 District by election, we are pleased to express our belief that a most worthy council will result from the new election.

District Association Meeting.

The regular annual meeting of the Pharmaceutical Association of District No. 7 was held at Elora, May 13th, with the following members present: R. H. Perry, president, in the chair; Messrs. T. P. Smith, D. F. Kilgour, Arthur; R. Phillips, Fergus; R. Wood, Erin; T. Stevenson, A. Turner, Orangeville; A. Stewart, A. B Petrie, jr., C. Law, Guelph.

Minutes of previous meetings were read and confirmed.

The names of P. F. Maddock, of Guelph, and R. D. Norris, of Elora, were added to the list of members.

Reports of standing committees were received and adopted, after which the officers for the ensuing year were elected as follows:

President, T. P. Smith; 1st vice-president, D. F. Kilgour; 2nd vice-president, A. Jamieson; 3rd vice-president, R. Wood; secretary, Alex. Stewart; treasurer, R. Phillips; auditors, Messrs. Stevenson and Wood.

COMMITTEES.

Chemistry, Pharmacy, and Legislation —A. Stewart, R. H. Perry, L. W. Yeomans, R. D. Norris, R. Wood.

Trade and Commerce—T. P. Smith, A. Turner, A. B. Petrie, D. F. Kilgour, R. Phillips, jr.

Grievances —R. H. Perry, J. H. McCollum, W. G. Smith, W. Colcleugh, T. Stevenson.

Entertainment—J. R. Dodds, P. F. Maddock, J. V. Kannawin, A. Jamieson, Charles Law.

R. Phillips, jr., presented the treasurer's report, which showed a balance in the treasury of $62.43

The annual fee was reduced to fifty cents.

Messrs. Turner and G. P. Smith reported that Mr. A. B. Petrie would not be a candidate for re-election in the coming council elections, whereupon it was moved by G. P. Smith, seconded by T. Stevenson, that Mr. A. Turner be the nominee of this association, and that the association pledge its support for his election. The motion was carried.

Mr. Turner returned thanks for the nomination, and, as he expected that he would have opposition, desired the hearty support of those present.

Moved by A. Turner, seconded by T. P. Smith, that the thanks of the association be tendered A. B. Petrie for his valuable and energetic services as council representative of this district; also that we endorse the general action of the present council, and appreciate the financial and satisfactory condition generally of the college. Carried.

A vote of thanks was tendered the retiring officers, and Georgetown decided as the next place of meeting.

An adjournment was then made.

FOOD VALUE OF MARGARIN.—Experiments have led Jolles to the conclusion that pure margarin has the same degree of digestibility and food value as butter itself.

Henry Eagleson,
College Gold Medallist, O.C.P.

Henry Eagleson, winner of the college gold medal for general proficiency at the May examinations of the Ontario College of Pharmacy, was born on a farm near the village of Baillieboro, Ont. At the age of seventeen he obtained a second-class teacher's certificate, and taught for two years. He then commenced the drug business as an apprentice with T. George Watson, of Port Hope. At the Junior examination held in December, 1894, he stood second on the list, and was first in two subjects; during the senior term he was elected president of the class. Mr. Eagleson is twenty-five years old, and is now engaged as assistant with W. Latimer, 166 Yonge street, Toronto.

QUININE SULPHATE WITH SYRUP.—As much as 1.5 grams of quinine can be dissolved by heat in 30 grams of syrup, and then diluted with 200 grams of water with precipitating. No acid being used, no fluorescence is produced.

Good Business Maxims.

Carefully examine every detail of your business. Be prompt in everything. Take time to consider, and then decide positively. Dare to go forward. Bear troubles patiently. Be brave in the struggle of life. Maintain your integrity as a sacred thing. Never tell business lies. Make no useless acquaintances. Never appear something more than you are. Pay your debts promptly. Shun strong liquor. Employ your time well. Do not reckon upon chance. Be polite to everybody. Never be discouraged. Then work hard, and you will succeed.—*Notes and Queries.*

A Word to the Drug Clerk.

Many clerks of to-day are some day destined to be the managers of their own pharmacies. From their ranks must be filled the places of those that will sooner or later retire from business. The young man that is to-day wrestling with the many arduous duties of apprenticeship should look forward to the time when he will be his own master, to assume new duties and shoulder wider responsibilities. If he is of a thoughtless disposition, and a shallow observer, he will most likely find his new position not very bright or inviting. His path will be strewn with many reverses and trials heretofore not thought of, that may make him wish that he had chosen another vocation. On the contrary, if he is industrious at the beginning of his career in pharmacy, he will, in all probability, be a success as a proprietor.

The clerk should, by all means, take part in any movement that has for its object the advancement of his chosen profession. Not only should he try to get all the information possible from his employer, but where there is an organization of pharmacists he should take part. If there is a local society of drug clerks, be one of them. Strive to advance the interests of all, thereby advancing your own. If you are a graduate of pharmacy, don't neglect your *alma mater.—Wm. Mittleback, in National Druggist.*

CLOUD PHOTOGRAPHS.—Experimental photographers in France have been making numerous attempts lately to secure cloud photographs of a perfect character. In one case, it appears, there was employed a diaphragm with a very small perforation in front of the lens. A short exposure was made, this giving only a faint image at first, but a perceptible contrast, and then intensification was resorted to, though, by such an operation, there is stated to be a danger of ruining the plate. Another method resorted to has been to polarize with Nicol prism the light entering the camera, and in this way, we are told, the light from the clouds remains unaltered, while only part of the rays proceeding from the sky gain access to the plate.—*Invention.*

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MANUFACTURING PERFUMERS,
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Standard in strength and quality. Reasonable in price. Satisfactory in use.

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LIME JUICE

We prepare for the market the concentrated juice of the Lime Fruit, imported by ourselves from the West Indies. We confidently offer it to the trade as an article that will prove pleasing to all concerned, because of these important considerations:—quality, quantity, price, and profit.

PINT CLARETS AT $1.60 per doz.
QUART WHISKEYS AT $3.80 "

Also LIME JUICE CORDIAL.

COMPOUND SYRUP OF FIGS

Is a delicious cordial preparation of Alexandria Senna, representing 125 grains in each fluid ounce. The nauseating properties of the senna have been removed, so that there is presented a pleasant, mild, safe purgative. Its appearance is attractive, and speaks of care in preparation.

$3.75 per doz.

Dunn's Magnes. Cit.
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Eno's Fruit Salt
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Dunn's Saline
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Red Cross English Dressings,
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1895 List and Discounts now ready.

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Our New Price List is now ready, and can be had on application.

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FOR HORSES AND CATTLE

They always give entire satisfaction, and there are no medicines in the market that can compare with them.
Thrifty farmers, stockowners and carters all over the country are, by actual results, realizing that they cannot afford to be without a supply of
Dick's Blood Purifier Price 50c.
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Circulars and advertising cards furnished.

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The Best Brushes

Hair, Tooth, Nail, Shaving, Bath, Cloth, Infants'

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Agents for Canada—

J. PALMER & SON,

1747 Notre Dame Street, MONTREAL

NOTICE.

We have just been appointed Wholesale Agents for the Dominion of Canada for the sale of

Payson's Indelible Ink.

All Orders will have our prompt attention.

The London Drug Co.

LONDON, ONT.

KERRY, WATSON & CO., - MONTREAL.

THE LYMAN BROS & CO. LTD.

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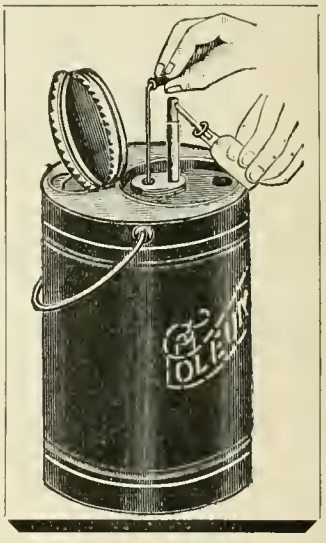
Perfection Dispensing Tank



HOLDS TWO IMPERIAL GALLONS.

Labelled "Castor Oil" or "Glycerin." Other labels can be imported.

PRICE, $1.00.

Numbers already in use that give excellent satisfaction. Order a sample with next goods.

CARNOT'S PARISIAN DENTIFRICE

We are special agents for this celebrated liquid antiseptic dentifrice and mouth-wash.
Each bottle nicely put up in a handsome carton.

Price, only $2.00 per doz.
In 3-doz. lots, $1.90 "

TRY A SAMPLE.

Trade Notes.

C. Hickey has opened a drug store at Chatham, N.B.

F. A. Sharpe is opening a drug store in Port Elgin, N.B.

A. Stapleton has sold his drug business in Fredericton, N.B.

C. A. Mumford has opened a new drug store in Halifax, N.S.

W. C. Wilson has opened a new drug store at St. John, N.B.

H. Southcotte has opened a drug store in Niagara-on-the-Lake, Ont.

J. C. Bell, druggist, Tilbury Centre, has sold out to R. A. Hall.

F. R. Curry, formerly of Minden, Ont., has removed to Brockville, Ont.

G. T. McDonald & Co. have opened a drug business in Shelburne, N.S.

W. R. House, Whitby, Ont., has sold his drug business to J. McCulloch.

A. J. Gould has purchased a drug business in Colborne, Ont.

G. S. Hobart & Co., druggists, Kingston, Ont., have called a meeting of their creditors.

R. O. Christie, druggist, Little Glace Bay, N.S., is dead, and the business is closed.

J. D. McCann has purchased the drug business of H. J. Meiklejohn & Co., Stirling, Ont.

D. Secord is opening a new drug store in Brantford, Ont., in Dr. Higinbotham's old stand.

F. S. Kinsman & Co., Digby, N.S., have sold their drug business to L. R. MacLaren.

W. W. Greenwood, of St. Catharines, has opened a branch drug store at Port Dalhousie, Ont.

The business of the Vancouver Drug Co., Vancouver, B.C., is advertised for sale by the sheriff.

Atkins & Atkins and H. M. McDowell & Co., drug firms of Vancouver, B.C., have amalgamated.

Another department store in Toronto, McKendry & Co., has put in a stock of patent medicines.

Charles Cluthe, truss manufacturer, King street west, Toronto, Ont., has made an assignment.

G. W. Spackman is the firm name of the Hamilton, Ont., drug business, formerly Spackman & Co.

The Fort William Drug Co., Limited, Fort William, Ont., has obtained a charter of incorporation.

N. R. Mackenzie, of Chatham, N.B., has purchased the drug business of H. H. Johnston, Newcastle, N.B.

H. W. Smith has opened a branch drug store in the new hotel near Clifton House, Niagara Falls, Ont.

G. K. C. McGregor has opened a new drug store on the north side of the Market Square, Brantford, Ont.

Charles M. Briggs, of the patent medicine firm of G. C. Briggs & Sons, Hamilton, Ont., died suddenly, May 17th.

T. H. Hinchman, of the old-established wholesale drug firm of T. H. Hinchman & Sons, Detroit, Mich., died last month.

A traveller who came over from England in the Lake Superior was caught by the customs house authorities at Montreal in the act of smuggling a lot of surgical instruments. He had prepared a false bottom in his packing case, and in this receptacle were placed the instruments. The man was tripped up by Inspector McLaughlan and his men and the plunder seized. The man, who was an American and on his way to the States, settled dearly for the attempt, and went on his way a sadder but wiser man.

The western air has also affected the conduct of the druggists of Vancouver. McDowell & Co. and Atkins & Co., two large firms controlling four stores, amalgamated recently with a capital of $100,000, for the purpose of buying their goods cheaper and in large quantities. All the other druggists in Vancouver now say that should the new firm cut prices they will at once form a syndicate for the purpose of buying cheaper, by which means they will be able to meet the other combination and sell as low as they do. A meeting has been held, and this course decided upon.—*The Commercial.*

Hattie & Mylius' new store is a great improvement to Hollis street. They have transformed one of the darkest and dingiest corners into as bright and attractive a drug store as one will see anywhere in the Dominion. The store is finished in cherry, and at night, with its eighteen electric lights, the fine workmanship shows particularly well. The store is built for convenience as well as beauty, and any one viewing it can easily see what a vast improvement it is over the old stand. The dispensing department is well fitted with every convenience requisite for compounding quickly and accurately. Hattie & Mylius also occupy the flat over Horton's paint shop on Sackville street. They are connected with it by an iron door. Their laboratory and private office is situated here, and they also have a room for storing surplus stock. Hattie & Mylius now occupy two of the best corners in Halifax, their south-end branch being on the corner of Morris and Pleasant streets. There is a branch post office in connection with the south store now. This is proving a great convenience to all south-enders.—*Halifax Courier Review.*

Montreal Notes.

A pharmacist in Montreal has got into trouble in connection with the U.S. custom laws. Just how the matter stands is not very well known. It appears that the party was arrested as he was boarding a train in New York to return to this city, and was held to bail for $5,000, which he was not able to obtain. Finally, the authorities let him out on a $2,500 bail, but when the case was called he was *non est.* It is said the case is more serious than is generally supposed.

There is no doubt that a much larger quantity of phenacetin and sulphonal has been imported into Canada from Europe than can be consumed legitimately in this country.

A large majority of the pharmacists of the largest cities in England, in answer to queries sent to them by the editor of the *Chemist and Druggist* of London, replied in favor of closing at 8 p.m., with a proviso that prescriptions might be filled after that hour if necessary, it being understood that the window lights should in no case be lit so as to attract custom. The editor was recently examined on this subject before the Private Bills Committee of the House of Commons in connection with the Shop Hours Act which is now before the British House. Druggists here are beginning to show a desire to close earlier, and to give up the absurd practice of keeping open all day on Sundays. Two or three have recently given up this latter practice, and now keep open for an hour in the morning and an hour or two in the evening, and they find their customers and the doctors quite satisfied with their arrangement. Druggists begin to feel that they deserve a little public sympathy in respect of shorter hours of labor. Of course the soda-water-and-cigar druggists keep open as usual, and light up their shop windows on Sunday evenings to attract customers.

Business is very dull in the drug line, and, in fact, in every other retail line in Montreal. Storekeepers in the east, west, and centre all say the same thing, and the bank reports show a great falling off in business generally. Owing to the excellent condition of public health, as shown by the Board of Health reports, it stands to reason the prescription business must be very bad. The doctors likewise complain loudly of the state of affairs in their line.

The College of Pharmacy is looking for a first-class lecturer on Materia Medica, a very difficult thing to find. The desire has been expressed that a druggist shall fill the position, but a man engaged in active business could scarcely devote the time necessary, neither could a man under engagement with a druggist, so that it is possible a professor from one of the medical schools in town would have the preference, should an application come in from such a source.

Manitoba Notes.

The drug trade in Manitoba, along with others, is receiving in a measure its share of the increased improvement in business conditions.

Owing to the unusually cold weather prevailing throughout the province, the summer trade can scarcely be said to have yet commenced, but the druggists generally are preparing for a good summer's business, and, with the present

promising outlook for a good crop, there is no lack of confidence as to the future. In collections and financial matters a marked improvement is noticed.

Mr. J. A. Wright, Boissevain, made a business trip to Winnipeg last week.

Dr. R. Wheeler, proprietor of the Birtle Drug Store, Birtle, was in Winnipeg a few days ago.

Mr. C. H. Cranston, as previously announced, has opened his new drug store on the corner of Main street and Pacific avenue. His store has been fitted with entirely new fixtures manufactured from choice British Columbia cedar.

Mr. Joseph Taylor, of Portage la Prairie, and Mr. A. T. Andrews, of Gladstone, were in Winnipeg last week.

A case occasioning much interest to the drug trade, more especially in Manitoba, was the recent prosecution of Mr. D. M. Sutherland, of Boissevain, for selling poisons illegally.

It appears that Mr. Sutherland has been conducting a drug business under the name of a registered physician in that place, but evidence adduced at the trial clearly established his interest and proprietorship in the business, and he was consequently fined $20 and costs.

But few cases of this kind have come under the immediate notice of the association, but such cases as have been brought before them have been dealt with in a manner which shows the determination of the association to protect the trade in every possible way, and to preserve the utility of the act.

Prince Edward Island Notes.

There is nothing but news of new drug stores from Prince Edward Island. In Charlottetown, Mr. Watson has moved into a new drug store opposite the Queen street entrance to the market, one of the very best business stands in the city. The new store is an exceedingly handsome and well-arranged establishment, and in every way well adapted for the extensive and constantly growing business of this old and popular house. The store is the one recently occupied by Messrs. George Carter & Co. Since the latter firm vacated it, extensive improvements and alterations have been made, until it has been transformed into a store in which Mr. Watson can carry on his business to the best advantage, and one which his many customers find it a pleasure to visit. It has been fitted up in style second to none, and is in every sense a model of convenience and beauty. To the right, on entering, is the counter, behind which is an ample extent of drawers, finished in mahogany, above the same being a good shelf area of ash, thrown into strong relief by the chocolate coloring of the walls. On the opposite side of the store is the shelving for proprietary preparations, and, below, ample lockers surmounted by show cases. The rear of the store is separated from the front by a dispensing screen and large mirror. The dispensary is entered through two Gothic arches, decorated with illuminated gold panels. The dispensing department is on a larger scale than any in Charlottetown, and its accessibility, as well as its excellent arrangements, are noticeable features. The window space is one of the best features about Mr. Watson's new quarters. It is the largest in Charlottetown, and gives splendid opportunity for beautiful display in window dressing. The store is brilliantly lighted by electricity throughout, and presents a most attractive appearance from without as well as within. There are a large manufacturing department, a private office, and ample storage room on the three flats, making the new store the largest in Charlottetown.

Mr. Davies has also made a move, and is now doing business in the store known as Beale's corner, on the north side of Queen square, near Mr. Rankin's drug store. The shop is neatly fitted up, and presents a clean appearance with its white shelving and bright glassware. Mr. Davies' is headquarters for soda waters, and his handsome fountain adds greatly to the appearance of the store.

Mr. Arthur Reddin has severed his connection with Messrs. Reddin Bros., and intends starting business for himself in a short time.

Mr. J. Alfred Gourlie, of Summerside, has completed one of the finest drug stores in the Maritime Provinces, where he will now be better than ever prepared to serve his large patronage.

Nova Scotia Notes.

The examinations of the Nova Scotia Pharmaceutical Society take place on June 11th and 12th. The annual meeting will be held immediately after.

There has been some agitation in drug circles of late anent the advance in price of alcohol, necessitated by the increase in duty. The leading druggists of Halifax have joined their Montreal confrères in protesting against this increase in the value of spirits for manufacturing purposes.

R. O. Christie, who for some years carried on a drug business at Springhill, N.S., died at Truro on May 23rd. Although Mr. Christie had been in poor health for some time, he was very hopeful, and his rather sudden death has been a source of surprise, as well as grief, to his friends.

The marriage of H. W. Cameron, druggist, of Brunswick street, to Miss Crawford, also of Halifax, was celebrated on May 31st. The event was attended by a very large number of friends, and the popularity of the bride and groom was evidenced by the large number of handsome and valuable presents which they received.

Mr. Chas. T. G. Taylor, of Bridgewater, paid a visit to Halifax lately. The cares of the retail drug business do not seem to wear very much on Mr. Taylor.

Mr. Percy B. Dakin, brother of R. B. Dakin, druggist, of Windsor, has secured a position in the Ordnance Drug Store, Halifax.

We are glad to see our friend, Mr. G. V. Rand, the veteran druggist of Wolfeville, again at his post after a severe illness.

Mr. Alfred A. Patterson, who has been spending the greater part of the past two years in South Africa, is now *en route* to England, from whence he will return to his old position in Halifax.

Mr. L. R. MacLaren, formerly with R. C. Fuller & Co., of Amherst, and more lately with H. Paxton Baird, of Woodstock, N.B., has purchased the drug business of F. S. Kinsman & Co., of Digby.

Mr. Geo. T. MacDonald, formerly of F. S. Kinsman & Co., has opened a drug store in Shelburne, N.S.

Many of the Halifax druggists are at present taking advantage of the fishing season, which is at its height. Among the more ardent lovers of the sport is Mr. Frank C. Simson, who recently returned from a trip to the Gaspereaux Lakes, reporting the trip enjoyable, and fishing good.

Troches of Phosphorated Chocolate.

Phosphorus is one of the most valuable of remedies, having a wide range of usefulness in the treatment of rachitis, sexual neuroses, etc., but its employment has hitherto been very much curtailed by unsatisfactory methods of exhibition. Up to very recently its solution in oil has been the most convenient, as well as the most certain, method of employment, neither the elixir nor the pills giving entire satisfaction. The objection to the oil on the part of the patient, however, is well known, and the apothecary as well as the physician, and their client, the patient, will hail with satisfaction the following device for its exhibition in the shape of chocolate troches, for which we are indebted to Professor Gartner, in the *Pharmaceutische Wochenschrift*.

A weighed quantity of phosphorus is dissolved in an equal quantity of melted cacao butter, and the solution filtered to get rid of any possible particle of so highly poisonous a substance. To this mass add sugar and cacao in powder, previously de-fatted, and spices to suit the taste; or, if desired, a sufficient quantity of prepared chocolate, freed of fat, may be used instead.

The mass is worked up in a mortar (or, in quantities, in a mixing machine) until a homogeneous mixture insuring perfect subdivision of the phosphorus is obtained. It is then divided into troches holding the desired quantity of phosphorus, in the usual manner. A convenient amount for each troche, as suggested by Professor Gartner, is a quarter of a milligram, or about $\frac{1}{250}$ of a grain, which is the ordinary dose for a child. The pastilles are then coated, first with gelatin or other coating, and finally with pure chocolate. —*National Druggist.*

WILSON'S ROOT BEER

Each Ten-Cent Bottle makes five gallons of a most delicious and healthful Temperance Beverage.

SELLS FAST and DRAWS TRADE.

Send us an order for a gross NOW and get the cream of the demand.

Plenty of Advertising Matter with each Order.

ARCHDALE WILSON & CO.,

WHOLESALE DRUGGISTS,

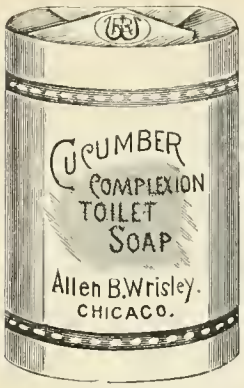
HAMILTON, ONTARIO.

Price List of Pharmaceutical Products

WE have just issued a new Pharmaceutical Price List (Catalogue No. 95), a copy of which we would be pleased to mail to all established retail druggists who may write for it. We believe it to be most comprehensive in its scope, as it includes within its pages the prices on fully 4,000 pharmaceutical products, which are conveniently arranged in groups. The notes of reference given in the appendix should be of interest and assistance to the careful buyer. In order to comply with the request of the wholesale drug trade that all lists conform to a general standard as far as could be done consistently, we have adopted in Catalogue No. 95 a system of long prices with discounts, which are liberal. Our terms of three months' credit, no charge for containers, cartage, and boxing, are certainly worthy of consideration.

Frederick Stearns & Co.

Manufacturing Pharmacists. *WINDSOR, ONT.*



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CUCUMBER COMPLEXION TOILET SOAP

IS "PURE GOLD"

The virtues of Cucumber Juice for the Skin and Complexion have become *famous*. We challenge comparison with any fine milled, delicately perfumed, high grade soap in the market. It's **The Complexion Toilet Soap** of the world. Made on honor, full value, par excellence. Matchless for a clear, soft, skin beautifier. It is well worth 50 cents a cake, but can be sold at Retail for (¼) one-quarter of that price. Try it, try it, and be convinced.

Sold by the Wholesale Druggists in Canada.

MADE ONLY BY

ALLEN B. WRISLEY

479 to 485 5th Avenue,
CHICAGO.

Manufacturer of High Grade Toilet Soaps, Perfumes, and Glycerine.

N.B.—Prices and Samples to JOBBERS on application.

KENNEDY'S MAGIC CATARRH SNUFF

(REGISTERED)

A POSITIVE CURE FOR

CATARRH
COLD IN THE HEAD
CATARRHAL DEAFNESS
HEADACHE, Etc.

It is reliable, safe, and sure, giving instant relief in the most distressing cases.

PRICE, 25 CENTS.

Wholesale of **Kerry, Watson & Co., Montreal.**
Lyman, Knox & Co., Montreal and Toronto.
And all leading Druggists.

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Patents and Patent Causes.
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FEARFULLY FATAL TO FILTHY FLIES!

CLEAN TO USE.

MARSHALL'S FLY CATCHER. PATENTED. When Covered Pull String back to remove flies, and use again. The Fly Paste for own use supplied in Tins at 2d. Manufactory, Henfield, Sussex.

Can be carried in the Pocket.

"THE ONLY REEL COMFORT."

MARSHALL'S Fly & Mosquito Catcher

IS NOT OFFENSIVE TO THE SIGHT.

Catches more Insects than Sticky Papers.

DOES NOT SPOIL BY KEEPING.

GOOD IN ANY CLIMATE,
Therefore specially suitable for Export.

Promptly fixes the pests, and rapidly clears a room of these carriers of disease and contagion.

Catches successive crops by drawing the String to and fro, and at the same time Killing the Insects, thus there is no lingering torture.

CANADIAN WHOLESALE DEPOT:

The LYMAN BROS. & CO., Limited,
TORONTO.

PISO'S CURE FOR CONSUMPTION. The Best Cough Syrup. Tastes Good. Use in time. Sold by Druggists. 25 CTS.

I presume we have used over one hundred bottles of Piso's Cure for Consumption in my family, and I am continually advising others to get it. Undoubtedly it is the

Best Cough Medicine

I ever used.—W. C. MILTENBERGER, Clarion, Pa., Dec. 29, 1894.———I sell Piso's Cure for Consumption, and never have any complaints.—E. SHOREY, Postmaster, Shorey, Kansas, Dec. 21st, 1894.

PISO'S CURE FOR CONSUMPTION. The Best Cough Syrup. Tastes Good. Use in time. Sold by Druggists. 25 CTS.

Colleges of Pharmacy.

Montreal College of Pharmacy.

The annual meeting of the Montreal College of Pharmacy was held on Thursday, May 9th, in the college building, 595 Lagauchetiere street. David Watson, Esq., occupied the chair, with a goodly number of members and students present. The chairman opened the meeting by calling upon the secretary, Mr. E. Muir, to read the minutes of the last annual meeting, which were duly confirmed, after which the secretary read the annual report and financial statements, which were also adopted. The president then made a brief speech, congratulating the members on the success of the college since its entrance into their new building, and on the college having so large a balance to their credit in the bank. He also thanked the members for electing him as their president for the eighth time. He had not desired re-election, and would willingly have given place to another; but, as it seemed to be the unanimous desire of the members that he should retain the position, he had accepted, and would do his best in the future, as in the past, for the interests of the college. The president then appointed Mr. A. D. Mann and Dr. T. D. Reed as scrutineers, and during the counting of the ballots the members devoted themselves to the discussion of various subjects in the interests of the college. The scrutineers, having completed the counting of the ballots, announced the names of the gentlemen who had been elected as the Executive Board, as follows: Wm. S. Kerry, J. E. Tremble, A. J. Laurence, W. H. Chapman, C. J. Covernton, Jos. E. Morrison, R. H. Bryson, R. W. Williams, and Wilfred Lecours, the president, vice-president, and treasurer having been elected by acclamation. The new board will, therefore, be as follows: David Watson, president; S. Lachance, vice-president; Alex. Munson, treasurer, with the above-named gentlemen as the Executive Board. Votes of thanks were passed to the president and board for their labors of the past year, also to the scrutineers for their labor in counting the ballots. After partaking of light refreshments provided by the president, the meeting adjourned.

Ontario College of Pharmacy.

The following are the results of the May examinations of the Ontario College of Pharmacy. One hundred and four candidates presented themselves, of whom sixty-eight passed in all subjects, fourteen in four subjects, two in pharmacy, and four in botany:

Medalists—General proficiency, H. Eagleson, Port Hope, the college gold medal. General proficiency, John Murray, Clinton, the college silver medal. Dispensing medal, Norval Smith, Kingston; pharmacy medal, H. Eagleson, Port Hope; chemistry medal, R. Henderson, Guelph; materia medica medal, J. C. Morrison, Woodstock; botany medal, J. C. Morrison, Woodstock.

Honor list, in order of merit—H. Eagleson, Port Hope; John Murray, Clinton; J. C. Morrison, Woodstock; J. S. Brown, Ottawa; N. H. Brown, Toronto; J. C. Goosch, Milverton; O. Dowler, Ottawa; Norval Smith, Kingston; W. McDowall, Victoria; A. E. Hotson, London; A. J. McCall, Brussels; R. Henderson, Guelph; J. M. Fisher, Forest; John Woodward, Thessalon; W. Mitchell, Strathroy; H. A. Rowland, Newcastle; W. E. Bauer, New Hamburg; W. W. Turner, Chatham; Lucas Johnson, Markdale; G. A. Ionson, Jarvis; A. E. Marett, Millbrook; G. E. Thatcher, Ridgetown; C. A. Campbell, Whitby; F. T. McMaster, Deseronto; W. Faulds, Aylmer; O. P. Lyman, Ingersoll; Harry Taylor, Hamilton; D. A. Dickson, Galt; S. J. Mackey, Kemptville; A. T. Gledhill, Petrolea; J. G. Blain, Barrie; J. A. Graham, London; S. C. Lamb, Athens; G. F. Campbell, Listowel; T. Hatton, Owen Sound; J. R. Watson, Guelph; A. E. Walters, Collingwood.

The following is the pass list, arranged alphabetically: C. H. Amys, Peterborough; J. A. Anderson, Smith's Falls; W. Appelbe, Parry Sound; D. Ballingall, Paris; J. R. T. Broughton, Collingwood; E. J. Bryson, Lyn; A. T. Brown, Acton; W. J. Bauld, Toronto; John Cavanagh, Cornwall; A. Cundle, Barrie; W. A. Cameron, Renfrew; H. Cowan, Seaforth; J. S. Fraleigh, Toronto; Paul Gordon, Whitby; G. J. Hunt, Arnprior; Major Kelly, Guelph; W. J. Kirkland, Guelph; J. W. Little, Uxbridge; C. T. Laird, Hamilton; J. McLeister, Fergus; O. A. McNichol, Alton; W. H. Pearson, Weston; A. W. Roberts, Lindsay; H. A. Raney, Prescott; H. G. Rudcliffe, St. Catharines; A. G. Rorabeck, Collingwood; B. J. Rolston, Toronto; B. P. S. John, St. Catharines; A. W. Urquhart, Oshawa; L. G. Winn, Hawksville; W. M. Wright, Brantford.

Passed in four subjects: A. W. Buschlan, Arthur, dispensing, prescriptions, chemistry, pharmacy: H. R. Carter, Picton, and A. Chambers, Millbrook, dispensing, prescriptions, chemistry, and materia medica; H. W. Chambers, Guelph, dispensing, pharmacy, chemistry, and botany; J. C. Keough, Guelph, dispensing, prescriptions, chemistry, and botany; E. M. Laird, Sarnia, dispensing, prescriptions, chemistry, and materia medica; Alex. Mitchell, Hamilton, pharmacy, prescriptions, botany, and materia medica; G. A. Rossie, Napanee, dispensing, prescriptions, chemistry, and pharmacy: H. N. Roy, Toronto, dispensing, materia medica, chemistry, and pharmacy: H. G. Robertson, Hamilton, and G. A. Rowe, St. Catharines, dispensing, materia medica, chemistry, and prescriptions; F. W. C. Ross, Toronto, pharmacy, materia medica, chemistry, and prescriptions; C. E. Swaisland, London, dispensing, botany, chemistry, and prescriptions; A. E. Williams, Hamilton, dispensing, botany, chemistry, and pharmacy.

Passed in single subjects: Pharmacy—D. G. Bleecher, Belleville, and G. A. Kennedy, Paisley. Botany—F. B. Bunting, Toronto; G. A. Kennedy, Paisley; W. H. Medley, Kingston; and J. Thompson; Esquesing.

Pharmaceutical Association of the Province of Quebec.

The next preliminary examinations for candidates entering the study of pharmacy will be held in the Montreal College of Pharmacy, 595 Lagauchetiere street, Montreal, and Laval University, Quebec, on Thursday, July 4th, 1895.

Candidates must give notice to the registrar, Mr. E. Muir, 585 Lagauchetiere street, Montreal, in writing, of their intention to present themselves at *least ten days* before the date fixed for the examination.

A printed form of application must be obtained from the registrar, which must be duly signed by the applicant.

No application will be accepted after the 25th day of June, 1895.

These preliminary examinations are held on the first Thursday in the months of January, April, July, and October of each year.

Bachelors of Pharmacy.

As the result of the recent examinations of the University of Toronto the degree of Bachelor of Pharmacy has been conferred on the following: T. Allen, C. H. Amys, J. A. Anderson, W. E. Bauer, W. J. Bauld, J. R. Y. Broughton, A. T. Brown, N. H. Brown, E. J. Bryson, G. F. Campbell, J. M. Cavanagh, D. A. Dickson, W. Faulds, J. M. Fisher, J. S. Fraleigh, A. F. Gledhill, J. C. Grosh, T. Hatton, A. E. Hotson, G. A. Ionson, W. J. Kirkland, C. T. Laird, S. C. Lamb, J. W. Little, A. I. McCall, F. T. McMaster, A. E. Marett, W. Mitchell, W. H. Pearson, H. A. Raney, A. W. Roberts, A. C. Rorabeck, H. A. Rowland, B. P. St. John, N. Smith, H. Taylor, G. E. Thatcher, W. W. Turner, J. N. Woodward.

The following candidates in pharmacy have been starred: A. Cundle, H. G. Radcliffe, T. L. F. Wynn.

Ginger Ale and its Flavorings.

With regard to the flavors used in the manufacture of ginger ale, they are undoubtedly numerous, no two makers turning out a ginger ale alike; even those who use essences or extracts of ginger ale of the same brand or make seem to turn out a beverage dissimilar in some respects one to the other, and the odds are enormously large against a maker exactly hitting the quantities of desired flavorings that he may wish to copy of another maker who may be fortunate in turning out an article that has caught on to the consumers' taste.

In flavors for ginger ale we will first take oil of lemon, says the *Australian*

Brewers' Journal. This flavor, we may safely assert, is used by 90 per cent. of the aerated water-makers throughout the world as one of the flavors for ginger ale, and, where a good oil is used, it gives to the beverage a pleasant, crisp, and refreshing flavor; but care must be taken not to overdo the thing by using a large quantity, so that it will become too prominent, as we can have even too much of a good thing. Oil orange (sweet) is a flavor also largely used, a little of which will go a long way. It gives to the beverage a fruitiness and fullness that is appreciated by many. If too much is used, it will come out too prominent in the after-taste —a mistake that must be avoided. Oil orange (bitter) is used by some to give a hard, dry flavor. Care must also be taken in the use of this oil, as if overdone it leaves in the mouth of the person who has drunk the beverage a taste as if they had been chewing orange peel. One ounce of this oil should be sufficient for at least 100 gallons syrup.

Oil nutmeg.—This oil is used to give the beverage a nutty or pudding-like flavor, very little being sufficient for a large quantity of syrup. Oil mace is another flavor used for the same purpose as nutmegs, and by many preferred to the latter, as it is more aromatic, although greater difficulty is experienced in the cutting or killing of this oil.

Oil cinnamon is also used by many, and in a great many cases sadly overdone, its presence becoming apparent by its aroma as soon as the beverage is lifted to the lips. Cinnamon should not be used either by ounces or drams, but by drops.

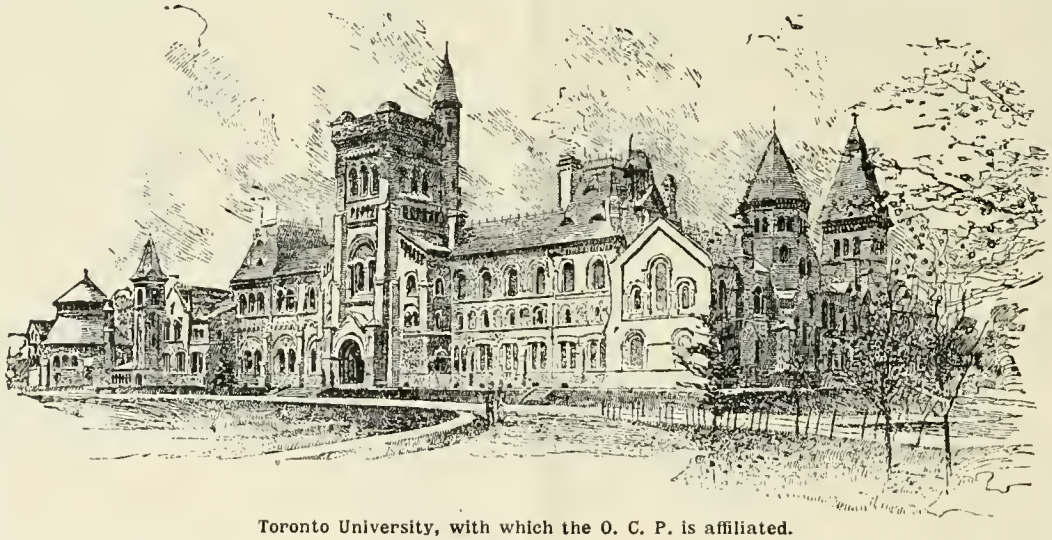
In oil cassia we have flavor similar but coarser, very strong, and to be used only in minute quantities. Essence vanilla is a very pleasant, palatable flavor, and used by a majority of makers. It imparts to the drink a pleasant fullness that is eagerly sought after.

Oil bitter almonds is used to give a nut-like flavor or pleasant after-taste, something similar to that found in the celebrated Belfast makes. It should be used in minute quantities only, the least overdose becomes at once apparent, and the effect sought after is totally lost. Oil bergamot is used for the aroma it possesses, and must be used accordingly. Oil bay leaves is also used, but not to any great extent. It imparts fullness, and has a decidedly pleasant flavor and aroma if used with care. Oil coriander gives also a pleasant aroma and flavor; it is not largely used in ginger ale, and in small quantities only. Oil ambergris is but seldom used, mostly on account of its high price; by itself it is a very weak oil for giving an aroma, and requires the assistance of other oils to bring its perfume properly out.

Oil geranium is used by some few makers. When used, care must be taken that this oil is of the best possible quality, as it is liable to change and give the syrups a disagreeable flavor, especially if mixed while the syrup is hot. The same remarks apply to oil verbena or lemon grass. Oil limes is of a crisp flavor, but is not in great demand for the manufacture of ginger ale. Makers in Great Britain use lime juice to give crispness. Oil citronella is also used by some makers, but, being a very powerful oil, must only be used in drops. When this oil is used, geranium and verbena must be dispensed with. Oil neroli is used sparingly to give the beverage an orange flower aroma.

Oil or attar of rose is now used by most makers, and is a decidedly useful flavor, giving, when properly used, a pleasant aroma and taste. No other flavor used can give the finish that this oil does. Care must be taken that this oil is pure, and none but the best virgin oil should be used. The commercial oils of roses are largely adulterated with oil of geranium; it should be used sparingly. Many ginger ales in which rose is used have the aroma of nothing else, and smell more like a packet of confectionery than an aromatic beverage. The safest way to use rose would be as follows: Take 1 dram of the oil and mix with it 3 ounces absolute alcohol, that is, 24 of alcohol to 1 of rose. Shake up well together, and 20 drops of this mixture is sufficient for 12 gallons of syrup. Thus 1 oz. of attar of rose would be sufficient for 7,200 gallons ginger ale syrup. These instructions also apply to the use of oils neroli and citronella. Oil ginger is used by some few makers to obtain the required ginger flavor; but this, in the manufacture of first-class ginger ale, must give place to tincture of ginger, or, what is still better, soluble essence of ginger of good quality. Where the soluble essence is used, it may be added just prior to bottling, thereby retaining the true ginger aroma and flavor, which would be liable to change if left for any length of time, added to an acidulated syrup. Essence of tincture of capsicum is used for giving heat to the beverage. A great deal has been said against the use of this, which is in no way deserved, as capsicum is in every respect as good a stomachic as ginger, but lacks the aromatic properties of the latter; care should be taken to use only sufficient to give a pleasant warmth in the breast after drinking, and not to feel burning in the mouth and throat. Two ounces of well-made tincture or essence of capsicum is sufficient for a 12-gallon batch of syrup.

In giving the above particulars of flavors, etc., for use in ginger ale, the reader must not be under the impression that all the oils mentioned are used together; some three or four at most of the flavors are quite sufficient for the flavoring of a good article. To those who have not had experience in the blending of flavors and their changes thereby, we would recommend a good brand of essence or extract of ginger ale.—*Dominion Grocer.*



Toronto University, with which the O. C. P. is affiliated.

Toronto University.

We present a cut of Toronto University, with which the Ontario College of Pharmacy is affiliated, and where graduates obtain their degree of Phm.B. In another place we give a list of the successful candidates at the May examinations.

MEXICO.—Anybody desiring to become a member of the Mexican Pharmaceutical Society must present an *original* scientific paper to that body before he can become eligible. This society also has standing annual prizes of $200, a silver medal, an honorary diploma for the three best original papers relating to pharmacy presented at the meetings during the year.

Lanolin rubber, made as follows, is much used in the Hospital St. Louis, Paris. Dissolve 1 gram of pure rubber in the necessary amount of chloroform, and mix the solution with 12 grams of lanolin.

Creme Lefebre is a freckle lotion which is a yellow wax salve containing corrosive sublimate.

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Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

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The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

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Dr. Wilson's Sarsaparillian Elixir
French Magnetic Oil
Dr. Wilson's Worm Lozenges
Dr. Wilson's Pulmonary Cherry Balsam
Dr. Wilson's Cramp and Pain Reliever
Dr. Wilson's Dead Shot Worm Sticks
Nurse Wilson's Soothing Syrup
Clark Derby's Condition Powders
Wright's Vermifuge
Robert's Eye Water
Hurd's Hair Vitalizer
Dr. Howard's Quinine Wine
Dr. Howard's Beef, Iron and Wine
Strong's Summer Cure
Dr. Howard's Cod Liver Oil Emulsion

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The Aconitine Squabble Ended—The Council Election Pink Pills Analyzed—Are Plasters Going out of Fashion?—Pharmacopœial Additions and Omissions Recommended The B. P. 1900.

(From Our Own Correspondent.)

It speaks much for the credit of the Council of the Pharmaceutical Society that, without stultifying themselves, the members have found a way out of the difficulty created by Dr. Paul's attack on Professor Dunstan. The council have privately expressed displeasure at Dr. Paul's excess of zeal, and have snubbed Professor Dunstan by passing a resolution which calls for the reconsideration of the Research Laboratory programme. This unique way of settling the matter has the advantage of meeting with the approval of the majority of pharmacists, who are tired of the fuss, although it can hardly be satisfactory to either of the principals concerned Professor Dunstan has broken the silence he has long preserved and replied to his critics in the official organ of the Chemical Society. It is quite certain that the duel between Herr Freund and Professor Dunstan as to the exact formulæ for aconitine, aconine, etc., will be of interest. At present the Professor is careful not to assert too much his confidence in his own figures, whilst he emphatically declines to accept those of Freund. Those who want to know the rights of the matter in dispute between the Research Laboratory Committee and the editor of the *Pharmaceutical Journal* cannot do better than carefully read the judicial leading article on the subject published in the *Chemist and Druggist* of May 11th.

The annual meeting of the society took place this week, and some very strong remarks were made by a prominent member, but the general feeling is in favor of burying the hatchet. At the election for the new council all the old members were returned, Mr. Martindale heading the poll. The two new members are Mr. Savory, of Savory & Moore, the well-known London firm, and Mr. Corder, a retired examiner, who has a drug business of long-standing in Norwich.

The annual dinner passed off with considerable enthusiasm, amongst the speakers being the Right Hon. J. Bryce (Board of Trade), Dr. Thorne Thorne, C. B. (Local Government Board), Professor M. Foster (Royal Society), Sir R. Quain (General Medical Council), Mr. Christopher Heath (Royal College of Surgeons), Mr. Vernon Harcourt, F.R.S. (Chemical Society), etc.

The boldness of *Science Siftings* in investigating the composition of proprietary preparations is astounding. It was only last month that I reported what their analyst stated to be the composition of Radam's Microbe Killer. Now Pink Pills have come in for a condemnatory report. Says this journal: These pills are coated with an aniline dye. Beneath this pink coloring matter is a thick layer of white sugar, amounting to half the weight of the pill. The interior portion consists of mineral and vegetable constituents in about equal weights, the mineral comprising iron, potash, and magnesium, with sulphuric as the acid radical. The vegetable part is stated to be liquorice. It is not easy to grasp the exact composition, as the analyst reports the iron to be in an insoluble form. A little more interest than usual is imported into this case as the analysis is published of a Dr. Selkirk Jones, in 1893, who found that aloes was the principal ingredient then. Last week this indefatigable journal examined Rose's Lime Juice Cordial and was apparently much surprised to find no salicylic was employed as a preservative. No mention is made if the preparation was examined for sulphurous acid, as this is a common preservative for this class of liquids. Mrs. Winslow's Syrup comes in for a special rap this week, a good deal being made of the statement, at a recent inquest, that one grain of morphine was found in each ounce, although only one-eighth of a grain was stated to be present according to the label. I should much like to know the reason why the drug journals in England have unanimously refrained from noticing the results of *Science Siftings*, although they have a direct bearing on pharmacy and are of considerable interest to those who retail these proprietaries, and who are frequently called upon to express an opinion on their composition and value.

Are plasters going out of fashion? This question was prompted by the statement of the head dispenser at one of our largest hospitals that they no longer used half the old-fashioned plasters, such as emp. roborans, picis, galbani co., calefaciens, etc. His suggestion that the reason why they have been discarded may be due to the new-fangled rubber combinations so much in vogue with American plaster manufacturers does not strike me as at all probable. But at the same time I must confess that plasters are fast disappearing from medical prescriptions, and in that respect have followed the old-fashioned blister. This, for some time past, I have found to be generally attributed to the custom of prescribing ready-made plasters. A patient is told to obtain a porous belladonna plaster from the druggist rather than the physician will take the trouble to signify it in the prescription. Retail pharmacists and wholesale alike to whom I have mentioned the subject have agreed that it really looks as if plasters are following poultices, and that very soon the plaster-iron will be placed upon the shelf.

The fact is medicine and pharmacy are in a transitional state, and a new epoch is dawning, especially as regards the rational use of drugs. We have advanced beyond the stage when it was thought proper to administer sugar to the diabetic patient in order to replace that which was passing in large quantity from the system! There is a little more method in medical madness at all events now, and this is mainly attributable to the increase in our knowledge of diseases. There is also a healthy scepticism in the value of so called specifics, and when a physician gives diuretics in dropsy he wants to see if he obtains the direct physiological effect—the increase in the amount of urine passed—which will most probably lead to the desired result. Yet it would be impossible to deny that there exists a fashion in medicine, as in many other mundane callings, or why is it necessary to write an article on the passing of the compressed tablet craze?

The Pharmacopœia Committee of the society has just made a report upon the subject of omissions and additions for the next British Pharmacopœia. No less than 220 articles and preparations are recommended to be omitted, whilst only 78 additions are advised. This would be a very suitable occasion, when these lists are published, for Canadian pharmacists to assist in the compilation of the next edition of the Pharmacopœia by discussing the value of these recommendations. From a cursory perusal of the list, I am inclined to think the committee has only kept British pharmacy in view, nor would this be altogether surprising should it turn out to be the case. The report is essentially a British report, and so far the official Canadian reply has not reached England. Australia and India have plainly stated some of their requirements, yet Canada remains silent. It would certainly be useful and interesting if all pharmacists who disagree with these recommendations should plainly intimate it as soon as possible, and also give their reasons. There is no doubt that criticisms will soon appear on this side; but probably it will take the position of defending more or less vigorously some of the articles doomed to be omitted.

The subject will shortly be made still more interesting, as Professor Attfield has replies from some 7,000 medical men upon the same subject. How far pharmacists and medical men are agreed upon the fundamental principle as to what should be added to, and what left out of, the next edition of the Pharmacopœia will soon be seen. There is then the revising of those preparations which will still stand, and the experimental work in devising formulæ for the new preparations, all of which will have to be done by pharmacists. Indeed, when this is clearly recognized, the probable date for the appearance of the Imperial Pharmacopœia is much more likely to be 1900 than 1895.

Glycerin a Plant Food.—Glycerin is stated by E. Assfahl to afford nutrition to plants when employed in solution of 0.2 per cent. to 0.5 per cent. strength. Weak or stronger solutions do not produce any appreciable alimentary effects.

Hydrogen Peroxide in Green Plants.—A. Bach found hydrogen peroxide in the leaves of 18 out of 25 species of green plants. Potassium bichromate and aniline were used as reagents.

Correspondence.

An Apprentice's View.

Editor Canadian Druggist:

Sir,—I have noticed of late much discussion concerning the qualification of druggists' apprentices. Many advocate a higher standard of matriculation to the College of Pharmacy; but I think that would be useless. It points towards selfishness in those who think of it, and is a true evidence of a crammed, but narrow, mind. They say it would keep many from entering the calling of a pharmacist; but is that an unselfish idea?

We want more good chemists and druggists, more practically trained and reasonably educated men and women to become pharmacists. In place of raising the examination for an apprentice, I would say, make the apprenticeship a term of seven years instead of four; further, those years should be spent with a licensed druggist who had passed his examination under the new Pharmacy Act, and not with one who had never seen or attended a College of Pharmacy. Then there should be a two-year college course; one course at the end of four years' experience, and the other at the end of seven. The course should not include much more than what is now gone over, but the college work should be more thoroughly dealt with, that the students might better understand its importance and more thoroughly mentally digest it.

This would make a nine years' course; it seems long, but there is a great future for the hard-working and willing pharmacist, and here I ask, Is there a person who can gain more than a necessary knowledge of the drug business and its branches in less than nine or ten years?

More Latin is not necessary for a druggist, but anatomy, physiology, and therapeutics, in their highest, should be taught in our college, for the time is coming when druggists will do all the prescribing, and the doctor only diagnose the case.

I have not expressed my ideas in eloquent language, but I think my meaning is clear, and I should be glad to know what others think on the subject of education for the druggist.

An Apprentice.

Toronto, May 13, 1895.

Editor Canadian Druggist:

I have read the remarks of both our drug journals regarding the recent pharmacy amendment of 1895. As it stands substantially as I recommended it to the Government, I judge it just to all concerned, workable in the public interest, the best that can be secured at present, and in advance of our previous legislation on the subject. Parliament and others helping to make it law approved of it. Some may object to having any poisonous patent or proprietary medicine put on the poison list through the board of health, but the board of health practically stands between the Government and any opposing public on questions affecting public health, and there has been a strong objection to such being put on said list by way of pharmacy authority alone.

I should have wished to have seen the words "patent or proprietary medicine" defined to include all such patent or proprietary medicines as are included in wholesale or retail lists of such, as some have an idea from the wording of the Act, "rendering its use in the doses prescribed dangerous to health or life," that they apply to medicine for man's use on himself. In my recommendation I mentioned Rough on Rats, said to consist largely of arsenic, and Recamier's Tan and Freckle Lotion, said to contain corrosive sublimate. Both can be used as poisons, it is believed, and any one selling arsenic or corrosive sublimate, whether patented, trade-marked, or proprietary, should register them poison, that poisoning may be traced for the public good. As I have been nominated for election for member of the Pharmaceutical Council for Brant, Haldimand, and Waterloo, if elected, I shall endeavor to unite physicians, boards of health, with whom I have been connected many years, and the general public, to get the full benefit of the late Act for the good of the long-suffering druggist and the public.

Robert Harbottle,
M.A., M.B., M.H.O., etc.

Burford, Ont., May 30, 1895.

Answers to Correspondents.

A Correspondent, Palmerston, Ont.—The prescription you send cannot be dispensed so as to prevent separation, the liq. ammonia not being miscible.

Clerk, Montreal. — Advertisements under the heading "Situations Wanted" are inserted *once* free of charge.

Medicus, Hamilton, Ont.—Write J. T. Lewis, Registrar Ontario College of Pharmacy, who can give you any information you desire in the matter.

Subscriber, Manitoba.— No, unless the name is signed.

Acknowledgments.

Semi-Annual Report of Schimmel & Co., Leipzig, April, 1895.

A "Wants Book," convenient in size and well gotten up. J. Winer & Co., Hamilton, Ont., will be pleased to present their patrons with copies.

Medicine, a new medical monthly, edited by Harold N. Moyer, M.D., No. 1, Vol. 1. Contains a number of valuable original articles by prominent physicians. George S. Davis, Publisher, Detroit, Mich. $2 per annum.

Aseptic Prophylaxis of Asiatic Cholera: Arsenization, by Reginald Barkley Leach, M.D., Paris, Texas, member American Health Association, etc., etc. A monograph on arsenization as the only scientific, as well as the only aseptic, measure against epidemic cholera.

We are in receipt of a new illustrated price list from the Seely Manufacturing Co., Windsor, Ont., and Detroit, Mich. A number of their leading styles of perfumes and toilet goods are shown. Amongst others their new perfumes, "White Star," "Ogarita," "Marposa Lily," "Lillian Russell," etc., also their Transparent Glycerine Jelly, Almond Milk Complexion Soap, Odontine, and other toilet requisites. The catalogue is an exceedingly handsome one, and in keeping with the handsome styles in which their goods are put up.

Acid-proof Cement.

A cement, which is said to form a satisfactory coating to vessels intended to contain strong sulphuric or nitric acid, can be prepared, according to a French technical journal, by mixing powdered asbestos, 2 parts, with barium sulphate, 1 part, and sodium silicate (50° B.), 2 parts. For weaker acids silicate of 130° B. may be employed, whilst a mixture of asbestos, 1 part, sand, 1 part, and sodium silicate, 2 parts, is said to be preferable for warm nitric acid.

Liquid Glue.

The *Bottler's Gazette* says: With any desired quantity of glue, use ordinary whiskey instead of water. Break the glue in small fragments and introduce these in a suitable glass vessel and pour the whiskey over them. Cork tightly and set aside for three or four days, when it will be ready for use, without the necessity of applying heat. Thus prepared, the mixture will keep unaltered for years, and will remain perfectly liquid, except in very cold weather, when it will be found necessary to place the bottle in warm water for a little time before using. The vessel in which it is kept must, of course, be kept always tightly corked to prevent the volatilizing of the solvent.—*National Druggist.*

Potassium Permanganate as a Stain Remover.—Helbig says (*Phar. Zeit.*) that vegetable blues, as well as other vegetable and aniline stains, may be removed from white wash goods, if they have resisted other treatment, by treating with strong solution of potassium permanganate followed by a 5 per cent. solution of sulphurous acid.

Vegetable and animal fats in petrolatum may be detected (*L'Union Phar.*) by triturating with concentrated potassium permanganate solution. The latter should not be decomposed.

Thompson's eau des circassiennes consists of 30 grams of zinc oxide rubbed up with 200 grams of perfumed water.

Why Not Put Up your Own

WHEN YOU CAN BUY

Complete Containers

AT REASONABLE PRICES?

You Can Save the Manufacturers' Profit!

For Samples of Containers with Prices, for putting up or packaging any of the following goods, drop us a card:

Condition Powders,
Folding Cartons, or Cartons and Wraps.

Bird Seed,
Folding Cartons, or Cartons and Wraps.

Chloride of Lime,
Impervious Boxes and Wraps.

Baking Powder,
Boxes and Wraps.

Compound Licorice Powder,
Boxes and Wraps.

Powdered Borax,
Folding Cartons.

Cream Tartar,
Folding Cartons.

Soap Bark,
Folding Cartons, or Cartons and Wraps.

Epsom Salts,
Folding Cartons, or Cartons and Wraps.

Senna Leaves,
Folding Cartons, or Cartons and Wraps.

Cough Drops,
Folding Cartons—2 ounce and 4 ounce.

Or if there are any other lines you wish to put up, write us about them.

LAWSON & JONES,
LONDON, Canada.

SIMPLE, BUT SURE!

Somerville's M. F. Cough Chewing Gum

FIVE CENTS PER BAR
TWENTY BARS ON A HANDSOME STANDING CARD

THE WHOLESALE TRADE HAVE IT

PRICE 65c. PER CARD

C. R. SOMERVILLE, - LONDON, Ont.

DRUGGISTS' SUNDRIES

I. R. COMBS, Special Values
TOOTH BRUSHES, Attractive Boxings
HAIR BRUSHES, French, Austrian, English

HOLIDAY GOODS

TOILET CASES ODOR CASES
MANICURES

In Celluloid, Embossed, and Mexican Onyx Finish
With New Combination in American Fancy Plushes

—FULL LINE NOW READY—

SUMMER EXCURSIONS give merchants a chance to see our display at a minimum cost. No better investment of time or money than a day in our Sample Rooms.

HARRIS H. FUDGER

50 YONGE ST., TORONTO.

Wampole's

BEEF, WINE, AND IRON.

In Pint Bottles..... .....$5 00 per doz.
Winchester (½ Imp. Gal.)..... 2 00 each.
Imp. Gallon, in 5 gal. lots, and over 3 50 per gal.

With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

¼ Gross lots, and over.....$60 00 per gross.
(Packed in One-Dozen Cases.)

We use a Pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

We invite comparison with other manufacturers, and will cheerfully furnish samples for that purpose.

Your early orders and enquiries solicited through Wholesale Jobbers or direct from us.

Henry K. Wampole & Co.,
MANUFACTURING PHARMACISTS,
Philadelphia, Pa.

Canadian Branch:
36 and 38 Lombard Street, TORONTO.

Telegrams: "Borax, Kidsgrove"
All Communications to be addressed to Kidsgrove.

MEAR & GREEN
(LIMITED)

Best English Refined

Borax
and
Boracic Acid

Lump, Crystal, Granulated, and Finest Powdered.

BORAX WORKS:
Kidsgrove and Tunstall, Staffs.
BORACIC ACID WORKS:
Connah's Quay, Flint.

ENGLAND

Radlauer's Somnal
AETHYL-CHLORALURETHAN
(REGISTERED)
THE NEWEST AND MOST EFFICIENT SOPORIFIC REMEDY

Taken in doses of 32 grains, or half a teaspoonful, in milk, ale, or cognac, produces in half an hour a quiet refreshing sleep, lasting from six to eight hours, with no unpleasant after effects. The effects of SOMNAL are more pleasant than those of Chloral Hydrate and Morphia. Experiments made in the Town Hospitals, Moabit and Friedrichshain, Konigliche Charité and Konigliche Universitats Poliklinik, Berlin, have shown that SOMNAL does not accelerate the pulse and does not upset the stomach. SOMNAL is especially recommended for Nervous Insomnia, Neurasthenia, Spinal Complaints, Infectious Diseases, Paralysis, Melancholia, Hysteria, Morphinismus, and Diabetes. The low price of SOMNAL enables its use in the poor and workmen's practice and in hospitals.

Radlauer's Antinervin
(SALICYLE BROMANILIDE)

In the form of Powder, the most efficacious Antipyretic, Antineuralgic, and Antinervine

ANTINERVIN replaces and surpasses Antipyrin, has no hurtful secondary effects, and is cheaper. Taken in doses of 8 grains four times a day, it is an excellent remedy for Feverish, Catarrhal, and Rheumatic Pains.

ANTINERVIN is of especial service in cases of Influenza, Neuralgia, Asthma, Tuberculose, Yellow Fever, Malaria, Migraine, Gout, Rheumatism in the Joints, Diptheritis, and other typical Fevers

MANY GOLD MEDALS HAVE BEEN AWARDED

S. RADLAUER, Kronen Apotheke, FRIEDRICHSTRASSE, 160 BERLIN, W.
W. J. DYAS, Toronto, Ontario - Wholesale Agent for Canada

"THE TWIN"
HALF-MINUTE
Clinical Thermometer

FOR QUICK REGISTRATION OF TEMPERATURE
INDELIBLE BLACK

PATENTED MARCH 25, 1890

The most Substantial Sensitive Thermometer ever offered to the Medical Profession.

With the atmospheric register at 60°, if "THE TWIN" be immersed in warm water of 105°, the mercury will reach that degree in less than **20 Seconds.**

The welding the two bulbs into one without any intervening space renders "THE TWIN" much stronger and less liable to break than any other heretofore offered.

It will also be found much more convenient to carry, requiring less room in a case or in the vest pocket. For these reasons, as well as for its **Guaranteed Accuracy**, "THE TWIN" is universally recommended by the medical profession.

FOR SALE BY ALL DEALERS. $2.00 EACH

25 per cent. discount to all doctors who mention the "Canadian Druggist"; if in gold with chain and pin, $2 net.

SOLE AGENTS: **S. B. CHANDLER & SON, Toronto, Canada.**

Luteol: A New Indicator.

This substance is oxychlordiphenyl hinoxalin, and is recommended by Dr. W. Antenrieth as an indicator in alkalimetry (*Arch. d. Phar.*, 233, p. 43). It is insoluble in water, but dissolves readily in alcohol. For analytical purposes a solution is made containing 1 gramme (15 grs.) in 300 c c. (8 oz.) of rectified spirit, and of this solution three, and at the most eight, drops at a time. The luteol solution gives a yellowish color with alkalies, and is even more sensitive to ammonia than Nessler's solution. For example, a single drop of ammonia solution was mixed with a litre of water, and to 5 to 10 c.c. of this mixture a few drops of the luteol solution was added, the result being an evident yellow color, while Nessler's solution only showed a reaction after a short time. Of course, luteol reacts similarly with fixed alkalies. It does not react with free acids.—*Chemist and Druggist.*

The Advance in Camphor.

Camphor speculations are very apt to break down suddenly. In the spring of 1890 the price of the crude drug was temporarily run up to £10 10s., or £11 per hundredweight in London, and there have been several occasions within the last fifteen years when the quotation of Japanese camphor momentarily exceeded 100 shillings per hundredweight. It is worthy of note, however, that the consumption of camphor for technical purposes has increased enormously of late years, while the production has, at best, remained stationary. In the six years, from 1882 to 1887 inclusive, for instance, when the price of camphor fluctuated comparatively little, the Japan variety being quoted at between fifty-one and ninety shillings per hundredweight in London, throughout that period the total exports from Japan amounted 303,328 piculs, an average of 50,555 piculs a year. During that period Formosa produced probably about 10,000 piculs a year. Against an average supply of fully 60,000 piculs annually ten years ago, there were exported, according to official statistics, the following quantities from Japan and Formosa respectively in the course of the last five years:

	1890. Piculs.	1891. Piculs.	1892. Piculs.	1893. Piculs.	1894. Piculs.
Japan..	35,120	43,905	28,720	23,821	20,412
Formosa.....	1,090	2,164	5,172	32,563	35,000 (?)
Totals.	..36,210	46,069	33,892	56,384	55,412

or an average of 45,593 piculs only. The quality, moreover, is not so good as formerly.

The remarkable displacement of Japan by Formosa as a camphor-producing country is a matter of much interest. In 1889 and 1890 the collection of camphor in Formosa was much hampered by the action of the Chinese authorities, who imposed all sorts of vexatious duties upon the collectors, but within the last three years concessions have been again granted by the Chinese to a German syndicate, under which the production of Formosan camphor has reached an importance never known before. As it seems clear that the Japanese supply is rapidly becoming exhausted, it would not be surprising if the new owners of Formosa were to take steps to prevent a similar fate from overtaking the camphor forests in that island.—*American Druggist.*

Self-Control.

The need of self-control in small things as well as great is illustrated in all the affairs of life, but especially in the business careers of those who obtain positions of trust. To be successful, they must maintain a high reputation in and out of business hours, and this they can only do by keeping constant control of their appetites and passions. Over-indulgence in anything which unfits them for the performance of their business duties will injure their reputation and put a check upon their promotion. The remark is often made by young and inexperienced men that they have a right to do as they please during off hours; that their employer pays them only for certain hours of the day, and that the intervening period is at their own disposal, free from control. This is true only in a limited sense. One's duty to an employer requires him to be in perfect condition during the hours of labor to do his appointed task. He may do as he pleases with his leisure hours only on condition that the use he may make of them shall leave him in good condition for the next day's work. If he shall habitually neglect to take needful rest, or shall be intemperate in eating or drinking, and shall, in consequence, return to his daily labors dulled in intellect, lacking in energy, or with nerves disordered, he has unfitted himself for the best service. His employer may not dictate to him how he shall spend his leisure hours, but he may, and doubtless will, tell him, after a time, that unless he can come back to work refreshed and in good condition his services will be dispensed with. If the offence is not so grave as to bring about this sentence, it will nevertheless prove a bar to promotion, and thus the young man who fails to obtain self control will also fail to advance in his chosen calling. Men in active business have little time to study out the qualities of their employees, and no inclination perhaps to trace the cause of differences, but they know almost instinctively that one young man is attentive, full of energy, and untiring, and that another has his mind filled with outside projects and personal schemes, or exhausts himself during his leisure hours with diversions having no relation to his business. And this knowledge is quite sufficient to determine which of the two should be given a higher place. The important element, after all, is character, and that can be established and maintained only by those who maintain control over themselves.—*Philadelphia Commercial List and Price Current.*

Coloring Photographs.

Hector Kraus thus describes a process recently patented in Germany. The pictures are colored from the back. The coloring permits the finest details in regard to light and shade, while the brilliancy of the colors and the effects produced perfectly harmonize with the general tone of the photograph itself. The colors employed for this purpose are aniline colors, which are dissolved in water or alcohol, and the solution, which can be made either warm or cold, must be as concentrated as possible. Numerous experiments have shown that certain aniline colors, dissolved in water or pure alcohol, give the desired results, while other colors require a solution, in a mixture of alcohol and acetic acid, in order to be utilized for this purpose. The number of aniline colors which can be produced in this manner is, of course, unlimited. Those colors dissolved in alcohol, or in a mixture of alcohol and acetic acid, must be kept in well-stoppered bottles, so that they keep as long as possible the capacity of penetrating into the paper or other material. In order to use the prepared colors they must be diluted with a medium, consisting of pure alcohol, or alcohol mixed with acetic acid. This medium makes it possible for the artist to weaken the different colors more or less, and thus to produce darker or lighter tints; besides, it increases the penetrating capacity of the colors. The photographs, no matter on what paper or by what process they are made, are colored before they are mounted, without undergoing any previous preparations. It is only necessary that the print is flat, without creases or other defects. The print is placed on a retouching frame, or a similar apparatus, on which it can be seen by transmitted light, then the colors are applied with the brush, on the back of the print, and diluted with a certain quantity of the medium. It is only necessary to keep exactly the contours, or different outlines of the pictures. The colors possess an extraordinary penetrating capacity, and enter at once into the paper, for which they possess a great affinity. It is, therefore, very easy to control the progress of the work, and to apply the colors within the limits where they are necessary. The liquids which have served for the preparing of the colors evaporate very quickly, and only the coloring matter itself remains in the paper. By turning over the print it can be observed how the colors appear on the front, and it is possible to exactly judge the effect produced by the colors, and, if necessary, to strengthen them by the application of further tints. After the picture is colored to satisfaction it can be mounted and burnished like any other photograph. Small high lights and finishing touches, such as jewellery or other small details, can afterwards be applied with ordinary body colors on the front side of the picture.—*Photographisches Archiv.; Phar. Jl. and Trans.*

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

JUNE 15TH, 1895.

At a meeting of the wholesale drug trade of New York city, a resolution was adopted that "in future they will not receive back for credit any merchandise after thirty days from date of purchase have elapsed," and the individual firms have notified their customers accordingly. This is a very proper and perfectly justifiable move on the part of the wholesale trade, and one that might with equal propriety be enforced in Canada. There is a certain amount of carelessness on the part of many retailers in their way of dealing with the wholesale trade which should be remedied.

Smuggling Drugs.

For the past eighteen months or more quite a large and lucrative business has been done by persons residing in Canada in selling phenacetine and sulphonal in the United States. W. H. Schieffelin & Co., wholesale druggists of New York city, have a patent right for the sale of these goods in the United States. Phenacetine can be laid down in New York at sixteen cents an ounce, and it is sold to the trade in the neighborhood of one dollar, so that there is a large margin, and consequently a great temptation to purchase the drug at a lower figure, no matter where or from whom it is procured. A number of arrests have recently been made of parties suspected of smuggling the drug, the principal offenders having their headquarters at Montreal. John T. Lyons, a prominent Montreal druggist, was arrested in New York on suspicion of being engaged in this work and was committed for trial, bail being afterwards accepted for his appearance. Amongst others arrested were Pettingill, who has, we believe, been in some such fix before; also a Wagner palace car porter named Moore, and another Pullman car porter of Boston, Mass. While there seems to be ample evidence that smuggling of phenacetine has been carried on to a very large extent, there is no doubt that a large quantity of it has been brought into the United States in the regular way of business. After paying the duty of 25 per cent. which is imposed on it, a good margin is still left for the seller, and a large demand is always to be found. It is thought that the firm holding the patent right for the United States has agents in the custom houses, who watch for parcels of phenacetine and threaten civil action against the consignees. Mr. Lyons, we understand, denies positively the charge made against him, and says he never sold an ounce of phenacetine in the United States. There is no doubt a large trade has been done, and in what is considered a perfectly legitimate way, although very much to the detriment of the holders of the patent right. Whether the action which has been taken in the courts against purchasers other than from this firm will amount to anything remains to be seen.

McDowell & Co., Limited.

Vancouverites have reason to be proud of the number of handsome stores which ornament their city. Among the most attractive of these are the new premises on Granville street of that enterprising pharmaceutical firm, Messrs. H. McDowell & Company, Limited. Advantageously situated at the corner of Granville and Dunsmuir streets, in Mr. J. M. Browning's new block, this store is certainly one of the most complete of its kind on the coast. The proprietors have spared neither pains nor money to this end, and are to be congratulated on the finished appearance presented by their new west end branch.

The spacious store has been fitted to the best advantage, being divided into two departments, the sale room and the dispensing room. The former is lighted by several handsome show windows, and has been transformed by the skill of designer, joiners, and painters in a marvellous manner. The walls and ceiling have received careful attention, and enhance the general appearance of the room. The show cases, screens, and counters, all in solid carved oak, are masterpieces of carpentry, and are arranged in a very ingenious manner. A large and very beautiful Tufts soda and mineral water fountain has been procured, and will be placed in the window facing on Granville street. Over the doorways leading to the dispensary are rich curtains, and drapings of the same material will also be placed in the side windows. The dispensary has been fitted with all the most modern appliances, and special cupboards for poisons are being erected to ensure their absolute safety.

Fitted with electric light, electric bells, gas stoves, etc., the store is in every particular complete. The fittings which made this magnificent *tout ensemble* have, without exception, been designed and manufactured in this city. To Mr. G. W. Grant, architect, goes the credit of the designing work, while praise is due Messrs. Robertson & Hackett for the excellence of the work executed by them.

Mr. H. H. Watson will continue to personally manage the west end store, while Mr. H. McDowell will chiefly be found at the company's well-known stand on Cordova street.—*News-Advertiser.*

British Columbia Notes.

British Columbia has been, as usual, free from any severity of weather, and a fine open winter, followed by a beautiful warm spring, has given place to what promises to be a warm summer. Vegetation is retarded somewhat by occasional cold nights, but, generally speaking, nature is rejoicing. Business is looking up. Men have taken heart again, and, encouraged by the good reports from the east, have decided that the depression's back has got to be broken. Drugs are selling better

Westminster druggists are opposed to cutting. A meeting was called recently to arrange a price list, and after some discussion it was decided to follow that which was adopted by the Victoria druggists in 1893. When will our fellow druggists learn that the public is ever ready to take mean advantage of the unfortunate jealousy existing in the business? "I can get this for so much at So-and-so's" is so baldheaded that it should be recognized anywhere. *Don't cut down*, and don't be persuaded by your customers, but find out from the man they name.

The B.C.P.A. is working hard. The by-laws framed to meet the requirements of the amended Pharmacy Act have been passed by the profession, and await the consent of the Lieutenant-Governor in Council. The annual meeting will be held on June 13, in Vancouver. We noticed that there were several names of gentlemen on the voting paper who, having been nominated, had neglected to notify the registrar of their acceptance or refusal, hence unnecessary uncertainty. What a pity that more interest is not taken in the business of the association!

We regret that T. M. Henderson, of the firm of Langley & Co., has been compelled to leave business for a few weeks on account of ill-health. From latest news we learn he is improving rapidly.

Robert Attwood, Victoria, has closed up his store and will devote his whole time to manufacturing his cough cure.

Cyrus Bowes (O.C.P.) has removed from Johnson street to a better position on Government street, Victoria.

PASTE FOR MOUNTING PHOTOGRAPHS. (H.H.M.)

Take of

Bermuda arrowroot	1½ ozs.
Cold distilled water	1 oz.

Mix thoroughly till smooth, then add

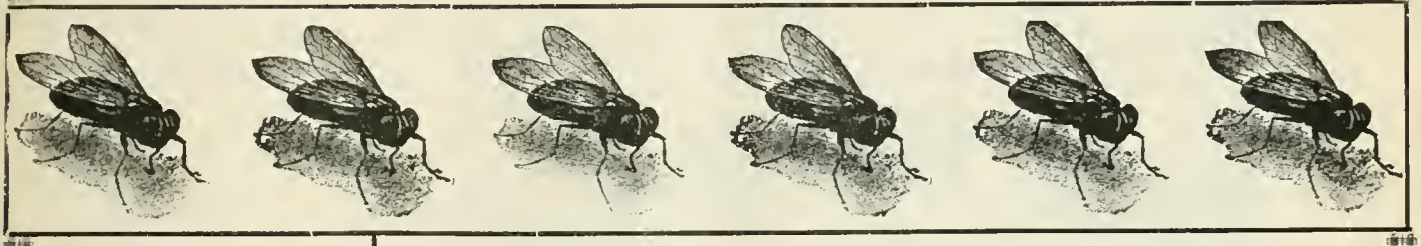
Distilled water	10 ozs.
Gelatine in shreds	1 drm.

Boil with constant stirring for five minutes; when cold, add 1 fluid ounce of methylated spirit and 10 minims of pure liquid carbolic acid.

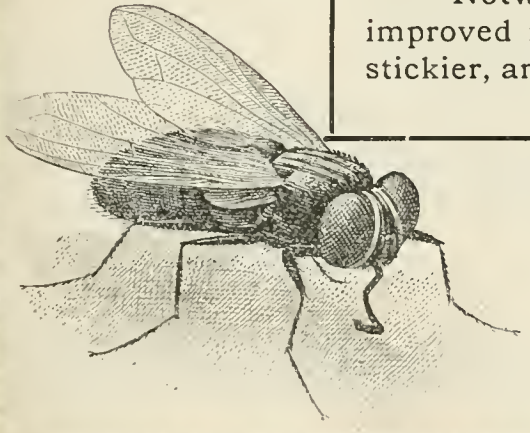
TANGLEFOOT

SEALED

STICKY FLY PAPER.



SELL THE BEST YOU CAN BUY



- - 1895 - -

ALL TANGLEFOOT is now made with the new Corrugated Border. This Border is an improvement on any of its predecessors—it restrains the sticky composition more securely, it opens more readily, and remains on the sheet. Always acts the same under all conditions. It is the perfection of Borders. (Patented Feb. 19th, 1895.)

Each case contains five of the New TANGLEFOOT Holders, with slides to raise the center of the paper. A sheet presenting a convex surface catches flies much faster than one lying flat. These Holders are nicely wrapped ready to hand out to a good customer for a present.

Notwithstanding the reduction in price the quality is improved in general. The paper is a little stronger, a little stickier, and will remain sticky a little longer.

Prices for the Regular Size, 1895.

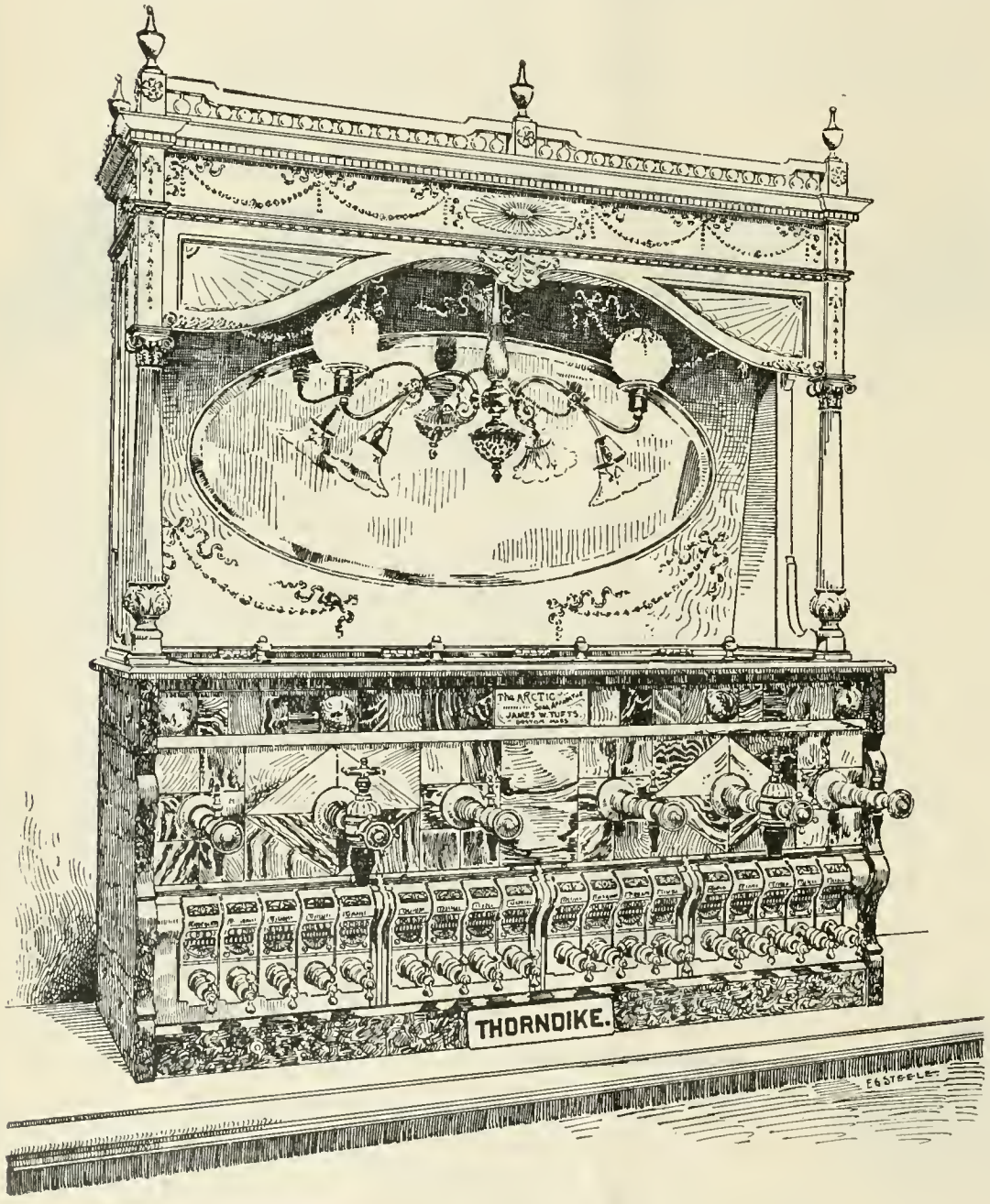
LESS THAN ONE CASE, - 50 CENTS PER BOX
ONE TO FIVE CASES, - - $4.75 PER CASE.
FIVE CASES AND OVER, - $4.50 " "

Each Box contains 25 double sheets.
Each Case contains 10 boxes.

FINE FOUNTAINS FOR FASHIONABLE PHARMACIES

THE leading Soda Fountains of to-day are the beautiful new designs in Mexican Onyx and Natural Woods, with **PATENT DRAWER SYRUP CANS.**

I am offering the finest line of NEW DESIGNS ever brought to the notice of the trade; together with the LOWEST PRICES and MOST FAVORABLE TERMS.



FACTORIES:

33 to 51 Bowker St.,

49 to 51 Chardon St.,

96 to 100 Portland St.,

BOSTON.

▼ ▼ ▼

WAREROOMS:

10 Warren St., near Broadway and City Hall,
NEW YORK.

268 to 270 Fifth Ave.,
CHICAGO.

96, 98, and 100 Portland St., near Union Station,
BOSTON.

▼ ▼ ▼

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When sending for Catalogues customers will confer a favor by mentioning THE CANADIAN DRUGGIST.

Address all communications to

JAMES W. TUFTS, 33 Bowker St., BOSTON, MASS.

Agent for Canada: W. S. WOODS, 58 First Avenue, Toronto, Ont.

SEND FOR NEW ILLUSTRATED CATALOGUE.

Pharmacopœia Suggestions.

At the meeting of the Pharmaceutical Society of Great Britain, held May 22nd, a letter was read from the secretary to the Pharmacopœia Committee relative to the progress of the committee, and enclosing their report. We append the letter and report, as given in the *Pharmaceutical Journal*, and desire especially to call the attention of Canadian pharmacists to the suggestions and ask for a discussion of the recommendations in our columns. As the new Pharmacopœia will be the official guide and text-book, it is desirable that any suggestions relative to the incorporation of any special preparations, particularly adapted to the requirements of this country, should be laid before this committee on the preparation of the Pharmacopœia, and any suggestions made in these columns will, we are assured, receive every consideration. The following is the letter and report :

May 22, 1895.

To the President and Council of the Pharmaceutical Society :

GENTLEMEN,—I am instructed to report to you that, with the view of procuring the information desired by the General Medical Council, the Pharmacopœia Committee has prepared a list of proposed omissions from and additions to the British Pharmacopœia, and distributed 550 such lists to local secretaries and other pharmacists throughout Great Britain, inviting them to record their experience of the extent to which each preparation is in use, and also to make any addition they might consider desirable to either list. Two hundred and thirty-two of these lists, comprising nearly 81,000 entries, together with 157 extra omissions and 163 extra additions, have been received, collated, and discussed.

At a meeting held on Thursday, May 16, 1895, your committee recommended that the two enclosed lists be forwarded to the president of the Medical Council without delay.

I am,
Gentlemen,
Yours obediently,
HENRY G. GREENISH,
Secretary to the Pharmacopœia Committee.

REPORT OF THE PHARMACOPŒIA COMMITTEE OF THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.

LIST I.

OMISSIONS.

Articles and preparations the omission of which from the British Pharmacopœia is recommended by the Pharmacopœia Committee of the Pharmaceutical Society of Great Britain.

Acetum
Acetum Cantharidis
Acidum Aceticum Dilutum
Acidum Lacticum
Acidum Lacticum Dilutum
Acidum Meconicum
Aconiti Folia
Alcohol Amylicum (transfer to Appendix)
Ammonii Nitras
Ammonii Phosphas
Amygdala Amara
Anisi Stellati Fructus
Antimonium Nigrum Purificatum
Aqua Pimentæ
Argenti et Potassii Nitras
Argentum Purificatum
Berberinæ Sulphas
Belæ Fructus
Bismuthi et Ammonii Citras
Bismuthum
Bismuthum Purificatum
Calcii Sulphas
Cambogia
Canellæ Cortex
Cataplasma Carbonis
" Conii
" Fermenti
" Lini
" Sinapis
" Sodæ Chlorinatæ
Cerevisiæ Fermentum
Cetraria
Charta Sinapis
Cinchonæ Cortex. (Sources of Quinine)
Cinchonidinæ Sulphas
Cinchoninæ Sulphas
Confectio Opii
" Rosæ Caninæ
" Scammonii
" Terebinthinæ
Cupri Nitras
Cusparia Cortex
Cusso
Decoctum Cetrariæ
" Granati Radicis
" Hordei
" Papaveris
" Pareiræ
" Quercus
Ecballii Fructus
Elaterium
Elemi
Emplastrum Ferri
" Plumbi Iodidi
Enema Aloes
" Asafœtidæ
" Magnesiæ Sulphatis
" Opii
" Terebinthinæ
Extractum Aconiti
" Belæ Liquidum
" Calumbæ
" Colchici
" Jaborandi
" Jalapæ
" Lactucæ
" Lupuli
" Papaveris
" Pareiræ
" Quassiæ
" Rhamni Frangulæ
" " " Liq.
" Stramonii
Farina Tritici
Ferri Peroxidum Hydratum
Ficus
Glycerinum Acidi Gallici
Granati Radicis Cortex
Hemidesmi Radix
Hordeum Decorticatum
Hydrargyri Persulphas
Infusum Anthemidis
" Caryophylli
" Catechu
" Cuspariæ
" Cusso
" Jaborandi
" Krameriæ
" Lini
" Lupuli
" Maticæ
" Uvæ Ursi
Kamala
Lac
Lactuca
Laricis Cortex
Linimentum Hydrargyri
Liquor Acidi Chromici
" Ammonii Acetatis
" Ammonii Citratis
" Antimonii Chloridi
" Calcii Chloridi
" Calcis Chlorinatæ
Liquor Chlori (transfer to Appendix)
" Cocainæ Hydrochloratis
" Ferri Acetatis
" Ferri Permitratis
" Hydrargyri Nitratis Acidus
" Lithiæ Effervescens
" Magnesii Citratis
" Morphinæ Acetatis
" " Bimeconatis
" " Sulphatis
" Potassæ Effervescens
" Sodæ
" Sodæ Effervescens
Lotio Hydrargyri Flava
Lupulin
Manganesii Oxidum Nigrum
Marmor Album
Mastiche
Maticæ Folia
Mica Panis
Mistura Creasoti
" Ferri Aromatica
" Olei Ricini
" Scammonii
" Spiritus Vini Gallici Mori Succus
Morphinæ Sulphas
Mucilago Amyli
Nectandræ Cortex
Oleo-resina Cubebæ
Oleum Copaibæ
" Phosphoratum
" Pimentæ
" Rutæ
" Sabinæ
Os Ustum
Ovi Albumen
" Vitellus
Physostigmina (alkaloid)
Picrotoxinum
Pilula Aloes Socotrinæ
" Cambogiæ Composita
" Ferri Carbonatis
" Scammonii Composita
Pimenta
Plumbi Carbonas
" Nitras
Potassi Cyanidum
" Ferrocyanidum
" Tartras
Prunum
Quercus Cortex
Rhamni Frangulæ Cortex
Rosæ Caninæ Fructus
Sabinæ Cacumina
Santonica
Sodii Arsenias (cryst.)
" Nitris
" Valerianas
Sodium
Spiritus Cajuputi
" Cinnamomi
" Juniperi
" Lavandulæ
" Vini Gallici
Stramonii Semina
Sumbul Radix
Suppositoria Acidi Carbolici cum Sapone
Suppositoria Acidi Tannici cum Sapone
Suppositoria Hydrargyri
" Morphinæ cum Sapone
Syrupus Ferri Subchloridi
" Hemidesmi
" Rosæ Gallicæ
Tabaci Folia
Tinctura Aloes
" Cocci
" Croci
" Ergotæ
" Ferri Acetatis
" Gallæ
" Jalapæ
" Laricis
" Sabinæ
" Stramonii
" Sumbul
" Veratri Viridis
Trochisci Catechu
" Ferri Redacti
" Opii
" Sodii Bicarbonatis
Unguentum Antimonii Tartarati
" Calaminæ
" Conii

Unguentum Creasoti
" Elemi
" Eucalypti
" Gallæ
" Hydrargyri Compositum
" Plumbi Acetatis
" Plumbi Carbonatis
" Potassæ Sulphuratæ
" Sabinæ
" Terebinthinæ
Uvæ
Uvæ Ursi Folia
Vapor Acidi Hydrocyanici
" Chlori
" Coninæ
" Iodi
Veratri Viridis Rhizoma
Vinum Aloes
" Ferri Citratis
" Rhei
Zincum
" Granulatum

LIST II.

ADDITIONS.

Articles and Preparations the addition of which to the British Pharmacopœia is recommended by the Pharmacopœia Committee of the Pharmaceutical Society of Great Britain.

Acidum Hydrobromicum, sp. gr. 1.308
Acidum Hypophosphorosum
Ammonii Iodidum
Benzonaphthol
Bismuthi Salicylas
Caffeinæ Citras Effervescens
" Hydrobromas
Carbasus Hydrarg. et Zinci Cyanidi
Carbasus Iodoformi
" Phenolis
" Sal. Alembroth
Chloralamide
Chloroformum Camphoratum
Chrysarobinum Purificatum (commonly known as Chrysophanic Acid)
Cocaina (alkaloid)
Codeinæ Phosphas
Elixir Aurantii
" Cascaræ Sagradæ
Emplastrum Bellad. Liquidum
Extractum " "
" Gummi Rub. Liquidum
Extractum Hamamelidis (P.G.)
" " Dest.
" Ipecacuanhæ Liquidum
" Iridis Sicc. (Iridin)
" Jaborandi Liquidum
" Malti
" Malti cum Ol. Morrhuæ
" Malti Liquidum
" Tritici Liquidum
Eucalyptol
Glycerinum Acidi Borici
" Belladonnæ
" Pepsinæ Acidum
Glycogelatinum
Gossypium Acidi Salicylici
" Sal. Alembroth
" Iodoformi
" Phenolis
Guaiacol Carbonate
" Crystals
Hydrarg. et Zinc. Cyanidum
Ichthyol
Linimentum Menthol
" Capsici
Linteum Acidi Borici
Liquor Cocci
" Pancreaticus
Lotio Acidi Borici
" " Carbolici
Morphinæ Tartras
Naphthalene
B. Naphthol
Ol. Carbolisatum
Physostigminæ Sulphas
Quininæ Hydrobromas
" Phosphas
" Salicylas
" Valerianas
Resorcinum
Salol
Sodii Arsenias Exsiccatus
Solutio Ethyl Nitritis
" Hydrogenii Peroxidi
Strychninæ Sulphas
Syrupus Codeinæ
Syr. Ferri Phosph. Comp.
" " et Quin. et Strychn. Phosph.
Syr. Ferri Hypophosph. Co.
" " Picis Liquidæ
" " Pruni Virg.
Terebene
Tinct. Ergotæ Ammon.
Troch. (or Pastill.) Cocain. Hydrochlor.
Troch (or Pastill.) Codeinæ
" " Gummi Rub.
" " Krameriæ
Unguentum Hydrarg. Ox. Flavi

What Makes the Successful Pharmacist?*

By CHARLES S. KLINE.

In undertaking to answer this query, it must, first of all, be determined what idea is conveyed by the term, "Successful Pharmacist." Shall it be considered to mean one who is successful only so far as his knowledge of pharmacy is concerned, or, one who is successful financially? Since the latter must presuppose the former, we deem it the major subject for consideration, and will give a few ideas regarding it from that standpoint; however, we will not ignore the fact that pharmacy is a profession, not an ordinary commercial pursuit; still, requiring the same business ability which applies to any mercantile enterprise.

WHAT IS A SUCCESSFUL PHARMACIST?

The success of a pharmacist depends upon the possession of several requirements: First of these is a complete knowledge of the profession gained by attending a college of pharmacy; followed by the more important practical experience. While a course of study in a pharmaceutical college is not an essential requirement, still the theoretical knowledge and mental discipline gained thereby form a firm basis upon which to build in practice.

A pharmacist may possess the diploma of a college of high standing, may be well versed in chemistry, materia medica, etc., may be capable of compounding most preparations from memory, and, in addition, may have had the benefit of several years' practical experience acting in the capacity of clerk, yet, when entering into business for himself, be not successful. We frequently observe cases of this description, instances in which one possessing all the foregoing requirements, when undertaking to conduct a store of his own, makes a complete failure at the outset, or, at best, merely ekes out an existence, and finally, after a hard and fruitless struggle, finds it impossible to meet his liabilities, and the business passes into the hands of his creditors. He again procures a position as clerk, with, we may say, a somewhat larger amount of practical experience, from which he will, doubtless, draw the conclusion that directing a pharmacy is vastly different from being "directed by a pharmacist."

*Read at the Colorado State Pharmacal Association meeting.

The question, then, presents itself, why could he not make a financial success of his venture? Simply because other requirements were necessary in addition to his professional attainments, viz.: Business tact, enterprise, perfect management of finance, and an untiring energy to attract custom and patronage. These qualifications, combined with the proper pharmaceutical education, constitute the essential requisites of the successful pharmacist.

THE SELECTION AND MANAGEMENT OF THE STORE.

Given one with the foregoing requirements, then arise the many points to be considered relative to the proper management of his store and business interests. First to consider is his location—(which, we believe, from historical reference, should be on a corner. Whether from a desire to be on the square, or in order to get a "corner on the market," we will leave for future generations to solve)—however, this is a subject requiring mature deliberation, from the fact that his future success depends largely upon a desirable location.

His place of business should be neat and attractive to the eye; and when we say attractive, we mean attractive. Make your store beautiful. We have heard it said, and believe it to be true, that "The lame spot to-day with three-fourths of the druggists, before they can reach out successfully for a larger and better class of trade, is the appearance of their store." Hence he should make use of every arrangement for the best display of goods. His laboratory should be supplied with the latest and best appliances for preparing and dispensing medicines, and with apparatus for the manufacturing of as many preparations as is practicable. It may not be out of place to mention here that in the making of fluid extracts alone he can save no small item of expense.

His stock should be free from shopworn or deteriorated goods, and as complete as possible, enabling him to supply any article for which there may be a demand. A word here about this demand and supply. If a new preparation is called for, he should, if possible, note how the demand came about; if through advertising, he should ascertain at once if he will be warranted in carrying the article in stock. If so, make no delay in publishing the fact that it can be had from his shelves. He should, however, use discretion in the purchase of a new remedy for which there may be a temporary demand, for after the advertising ceases it is apt to become dead stock.

In general, the appearance of his store should be such as to convey the idea that it is conducted by a prosperous and wide-awake pharmacist. Next to consider is the best means of gaining and retaining custom, and this we must believe the most important point. Many pharmacists overlook, or, at least, underrate, the fact that their financial success depends entirely

upon their patronage, and that every customer gained adds to their revenue. One should, therefore, endeavor by every honorable means to attract the attention of the public and make known to them that he seeks their good will and custom. The Directory should occupy a prominent and convenient position, and the stamp drawer should always be well filled. All should be treated with uniform politeness and courtesy. We believe that much care should be taken in the selection of clerks. A neat, attractive, polite clerk can do much to draw and keep custom, while, on the other hand, a discourteous, ill-dispositioned, or indifferent clerk can work untold injury to his interests. The proprietor of a pharmacy should absent himself no more than possible from his place of business, as many customers prefer to deal with him personally, and his constant presence denotes that he is directly interested in their treatment by his employees. He must constantly keep the fact in view that there are other druggists, like himself, seeking custom; hence, if possible, allow none to leave his place dissatisfied.

THE EXPENSE OF DOING BUSINESS.

Next, let us take up the matter of expense. His business success depends to a great extent upon this item alone. The actual expense of conducting a pharmacy is proportionately larger than that of any other branch of business; this, with the incidental expenditures seemingly trivial, breakage, leakages, etc., tend largely to decrease the profits. While there must be numerous necessary expense items, there are many which may be avoided; these comprise not only cash expenditures, but also products wasted in manufacturing; this latter is well understood by most druggists, but not always so well taken into consideration. Especial attention must be given to the purchase of goods. The druggist should not allow himself to become overstocked on any article, nor yet should he buy in too small quantities, as this materially increases the cost, particularly since so many proprietors have adopted the quarter of a dozen plan. Further, we believe that the question of quality, rather than quantity or price, should be involved. It never pays to buy an inferior article in drugs or chemicals.

He should follow closely the market quotations, and permit no overcharge; in other words, be a close buyer. He should discount all bills, if possible; but if his means do not admit of this, their payment should be promptly met when due. This is a point frequently overlooked by many druggists, who, instead of remitting for accounts when due, permit themselves to be drawn upon, thus displaying faulty business management and incurring extra expense for exchange.

MANUFACTURING PREPARATIONS.

The successful pharmacist displays a certain amount of originality in the manufacture of his own preparations. He does not attempt to imitate the advertised nostrums, but offers his trade non-secrets of his own, which not only give better satisfaction, but afford him a better profit. Regarding this, much has already been written, and both sides thoroughly discussed; but until the public cease desiring to be humbugged by flaring and well-worded advertisements, the demand for patents will continue, and I deem the only remedy is for the pharmacist, in all cases possible, to manufacture and recommend his own preparations. The formula should be printed upon the label, and the contents made accordingly by himself. He can thus assure his purchaser that he knows the exact contents. Were this idea carried out by all pharmacists, it would, to a great extent, discourage the use of patent medicines, and that horrible nightmare, the "cut-rate problem," would at last be solved.

While we have spoken of but few of the many essentials characterizing the successful pharmacist, it must be remembered that this is a subject which admits of almost unlimited discussion. We have mentioned briefly what, in our opinion, comprise his main requirements, and contend that one of an average professional education and the business ability will eventually become a "successful pharmacist."

In short, to quote a modern Shakespeare:

"A man of patience, fidelity, and trust,
Sympathetic, genial, and proverbially just,
Original, bright, and up with the times,
Your wants are his interests, and he both combines,
A man with all in his line you may need,—
Then here is the pharmacist who's bound to succeed."

—*Meyer Brothers Druggist.*

American Pharmaceutical Association.

The following, being a part of the report of the delegates from New Jersey to the American Pharmaceutical Association, is a strong appeal, not only for the New Jersey pharmacists, but all others, to join the national association:

Before closing our report, we beg to urge our brethren of New Jersey to earnestly consider the desirability—we might almost say necessity—of joining the American Pharmaceutical Association.

From the various objections that are raised against such a step, it is evident that the objects to be attained and the value of membership are but little understood by many pharmacists. Some believe, or pretend to believe, that the American Pharmaceutical Association is nothing but a mutual admiration society, composed of wealthy men who meet once a year for their entertainment and amusement and manage to have a good time generally. Nothing is further from the truth than such a supposition. That there are pleasant social features connected with each gathering is self-evident; for, if three or four hundred persons—men and women, young and old—meet once in twelve months after a whole year's hard work, they would, indeed, be wooden chumps or incarnate scientific cranks if they did not try to amuse themselves. It is one of the pleasantest features of such annual meetings that each one leaves home his drudgery and worry and for a week or two puts on a smiling, happy face, intent to show his most agreeable side and help to entertain his neighbors. The advantages gained by such social intercourse with men from all over the United States acts like an invigorating charm on mind and body, and imparts strength and energy for later work.

Others object to the American Pharmaceutical Association for quite a different, almost opposite, reason. By simply glancing at the proceedings, they claim that the papers read at the meetings and the debates are far above their sphere, and, in their eyes, have little or no connection with practical pharmacy. We members of the national association know that such an objection is unfounded, based on superficial observations or wilful perversion. It is true that no field or branch of the various sciences, allied to pharmacy, is excluded, and that, occasionally, hypothetical speculations are made the subject of papers at the meetings; but these are not the rule, and, whenever presented, should be a cause of pride and rejoicing to us pharmacists, for every practical improvement or application of science is preceded by theoretical study and research, and, if the American association is selected as the proper place to give publicity to the studious work of months or years, it only shows in what high esteem it is held by the eminent and scholarly members of our profession. The majority of papers, however, treat of practical questions of everyday occurrence, and the very fact that a commercial section is created shows what importance is given to this part of our vocation. The educational question, at present so important, is nowhere elucidated with more earnestness and profundity than in the respective sections. The scope of the American Pharmaceutical Association is as broad as Pharmacy herself; nothing too small or insignificant to be considered unworthy of attention, nothing too grand or scientific to be above the mental sphere of its members; it watches the preparation of the smallest pill or powder, and extends its investigations to the enormous products of the largest factories; and, while it welcomes the humblest and most secluded from our ranks, it comprises brains enough to give information and instruction to the wisest and most learned. It looks for members among all classes and branches of the pharmaceutical fraternity, and welcomes to its home the manufacturer, the professor, the jobber, and the retailer.

But there is one reason predominant over all others why we pharmacists should join this association. It is the tendency of our time to drift to union and find strength in organization. The trades have done so long ago, and accomplished

wonderful results. The barriers which state lines erect to the development of many arts and professions are felt to be more intolerable from day to day; for whatever powerful arguments may be brought forth in their favor from a political standpoint, art and science have never been subject to such restriction, and never will be. Every other profession has its powerful national association, and, in the never-resting struggle for supremacy, pharmacy, for its dual nature threatened and attacked from two sides, should not willingly yield her place. For the preservation, therefore, of our cherished profession, as well as for our own individual interest, we should become members of this association. A united class of citizens, organized in a noble cause, and following a well-defined purpose, will always gain recognition in our republic, and, if we ever expect to found a national pharmacy, it can only be done through such a union, and the American Pharmaceutical Association will be called upon to be the leader in such a movement. If she fails in her noble purpose, the fault does not lie with the members who, confiding in the justice of the cause, fight her battles, but with those who sulkingly stay behind, too indifferent to have an opinion, or too timid to join in the fight.

Whosoever loves Pharmacy, let him come; whosoever hopes that his profession will have a glorious future, let him come; whosoever believes that energy and enthusiasm are nobler than dullness and indifference, let him come.

(Signed) Wm. C. Alpers,
G. W. Parisen,
J. C. Field.

"Does Advertising Pay?"

The *News-Advertiser*, of Vancouver, B.C., observes with peculiar interest the prosperity which has attended the firm of McDowell & Co. From its first number until now, there has never been an issue of the *News-Advertiser* without an advertisement of H. McDowell & Co. appearing in it. Good times or bad times, summer or winter, this enterprising firm has always kept itself before the public by what is the best and most profitable method—an advertisement in the local paper. Nor has the result been unsatisfactory to the firm, as its senior member can attest. "McDowell, the druggist," has become a name and a description almost as well known as Vancouver itself. Men have come and gone, firms have sprung up and passed away, and a glance over the columns of the four-page editions of the *News-Advertiser*, of the early days of the city, affords a striking illustration of the changes which have occurred in the personnel of its business men. Of those first advertisers, Mr. McDowell is the only one who has continuously availed himself of the publicity afforded by these columns, and a perusal of the back numbers of the paper shows, from time to time, references to the steady progress and uninterrupted success which have marked the firm's career. Few, perhaps, who in 1886 saw the miniature drug store in the little frame building (on about the same site as that occupied by the firm now) on Cordova street, in which Mr. H. McDowell (with Mr. Marks as a partner for a short time) started, would have thought that in nine years the business would have grown to what it is to-day, or that two handsome stores, two extensive stocks, and a large wholesale and retail business would spring from such small beginnings in so short a time. "Does advertising pay?" "Ask McDowell, the druggist."—*News-Advertiser, Vancouver.*

Window Dressing for Druggists.

In the first place the window must be clean. It is absolutely impossible to make a dingy, dirty window seem attractive, no matter how much pains or money is put on the array within.

So, if your window is not perfectly clean, make it so. Then study your stock, and right here is where so many window dressers show their lack of judgment. Instead of placing articles in the window that need pushing, they present to the public a formidable array of standard goods that have been known nearly as long as they have existed. I have yet to learn the wisdom of filling a large show window with a remedy that uses the newspaper freely; the people know that every druggist has it in stock. The newspaper is the greatest educator, but the show window is a close second.

You may know your stock perfectly and yet be unsuccessful; you must also know two other things—your public and your window.

Now for the method of display. There are nearly as many systems of window dressing as there are window dressers; but the following has the advantage of being tried, and has given excellent results:

Change your display every week; make a specialty of the goods in the newspapers as well as in the window, and you will soon be reaping a handsome profit. It is a fact that the articles advertised least give the best profit when sold; and if you wake the people to a sense of the goods' cheapness and worth, you will be the gainer.

A few pointers as to the lines to be pushed. Take, for example, brushes. They yield a fair profit and offer many opportunities to the bright window dresser.

First, print a neat placard bearing only the word "Brushes," and hang it on the glass in the centre of the window. Then group in neat designs samples of every kind of brush you carry, hair-brushes, nail and tooth.

Call attention to the brush window in your newspaper ads., and, depend upon it, you will sell brushes and have your regular custom.

Vary the specialties with a general display, but strive to have the prettiest window in town, no matter what you have in it.

Arrange your display to suit yourself. Do the work yourself if possible; but your drug business will soon require all your time and attention. Then, if you have not before, subscribe for *Printers' Ink* for $2 a year; it will teach you more about advertising in all its moods and tenses than a man hired especially for the work could for $2,000. More than one drug store I know of owes its success to the Little Schoolmaster.—*L. T Weadock, in Printers' Ink.*

The Prescription Department.

The prescription department is by far the most important branch in any well-kept pharmacy, and it is a lamentable, but solid, fact that too little attention is given to it by our pharmacists to-day. This department should be the sanctum sanctorum of the druggist and clerk. Law does not regulate the manner in which it should be kept, but it is the moral duty of every pharmacist to have a code of laws, be they written or unwritten, that shall properly regulate this all-important department.

Some pharmacists care no more for their prescription counter than they do for their dispensing counter, and to this state of affairs can be laid many of the serious mistakes that occur in drug stores from time to time.

I beg to offer for your serious consideration a set of rules which I have styled the Ten Commandments, and which have been found practical by many wielders of the pestle. They are not hard to live up to, but simply require a little thought.

(1) Keep the prescription scales clean, and, if they have a cover, keep them covered when not in use.

(2) Keep the bottles well filled and perfectly clean at all times.

(3) Keep everything in its proper place.

(4) After using a bottle do not leave it on the prescription counter, but return it to its proper place.

(5) See that all the bottles are properly and distinctly labelled, so as to avoid mistakes in dispensing.

(6) When compounding prescriptions behind the desk, do not try to converse with some one in the front part of the store.

(7) Keep the customers out from behind your prescription desk; it is no place for any one but the pharmacist and his clerks.

(8) Do not neglect to label all poisons, simply because you are in a hurry.

(9) When putting up prescriptions do not let your mind wander off to something else, but remember that you hold the life of a human being in your hands, and act accordingly.

(10) Lastly, remember that your profession requires you to be prudent, careful, patient, and polite, and, whether well or ill, busy or idle, always keep yourself in good humor.— *Ward B. Edwards, in The Spatula.*

A . . .
GLASS . .
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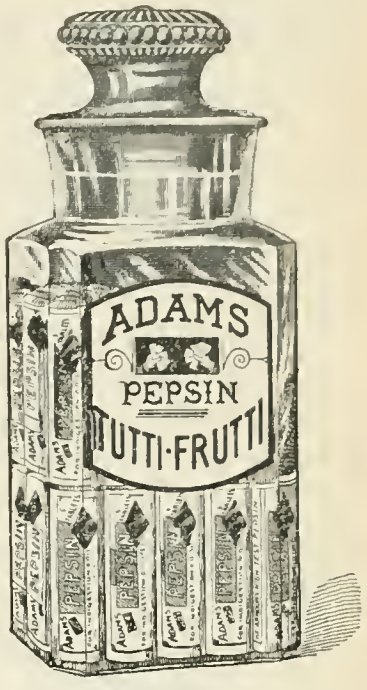

WITH ADAMS' PEPSIN

TUTTI FRUTTI

ASK YOUR WHOLESALER FOR IT.

Send for new advertising matter to decorate your window.

ADAMS & SONS CO.,

11 and 13 JARVIS ST., - - TORONTO.

OZONE

Ozone Specific is a valuable non-toxic, non-irritating antiseptic for either internal or external use. Our **Ozone**, concentrated form, is the most powerful blood purifier and germicide ever produced, and will be found a specific in all forms of Asthma, Bronchitis, Whooping Cough, Croup, Measles, or Diphtheria. For Catarrhal Troubles it will prove invaluable as a tonic and constitutional remedy, and is especially efficient in preventing or combating fermentation of food in the stomach, breaking up the worst forms of Dyspepsia and Sour Stomach.

For dressing Ulcerations of all kinds, preventing suppuration, and assisting towards rapid granulation and healing, **Ozone** has no equal.

Ozone is also used as a gargle for all manner of Throat Diseases; destroying all fermentation of the tissues brought forth by impregnation of disease germs. No germ life can exist where it is used.

All Druggists should keep this remedy, as it will prove a genuine friend to their customers.

Physicians owe it to themselves to try it.

OZONE SPECIFIC CO.

TORONTO, ONT.

RADLAUER'S
ANTISEPTIC PERLES

Of Pleasant Taste and Fragrance.

Non-Poisonous and strongly Antiseptic.

These Perles closely resemble the sublimates and carbolic acid in their antiseptic action. A preventive of diphtheric infection.

For the rational cleansing and disinfection of the mouth, teeth, pharynx, and especially of the tonsils, and for immediately removing disagreeable odors emanating from the mouth and nose.

A perfect substitute for mouth and teeth washes and gargles. Radlauer's Antiseptic Perles take special effect where swallowing is difficult in inflammation of the throat and tonsils, catarrh of the gums, periostitis dentalis, stomatitis mercurialis, salivation, angina, and thrush.

A few of the "Perles" placed in the mouth dissolve into a strongly antiseptic fluid of agreeable taste, cleanse the mouth and mucous membrane of the pharynx, and immediately remove the fungi, germs, and putrid substance accumulating about the tonsils, thereby preventing any further injury to the teeth.

METHOD OF APPLICATION:

Take 2—4 Perles, let them dissolve slowly in the mouth, and then swallow. Being packed in small and handy tins, Radlauer's Antiseptic Perles can always be carried in the pocket.

MANUFACTURED BY

S. RADLAUER - Pharmaceutical Chemist

BERLIN W., GERMANY

W. J. DYAS, Toronto, Ont., Wholesale Agent for Canada.

GENUINE CELERY REMEDY'S MANLEY'S

"MANLEY'S"

CELERY NERVE COMPOUND

WITH

Beef, Iron, and Wine

A scientific Combination of Celery, Beef, Iron, and Wine, Tonics, and Pure Glycerine, instead of alcohol.

UNEQUALLED

AS A HEALTH BUILDER and HEALTH RESTORER

Has given the FULLEST SATISFACTION to persons who have taken it.

It is put up in a 16-oz. bottle, contained in an attractive Blue and White carton.

PRICE TO THE TRADE :—$6 (net) per doz. 5 per cent. off on three dozen orders, and 5 per cent. off for spot cash.

SELLS FOR $1 A BOTTLE.

Orders respectfully solicited.
For testimonials, etc., write to the makers.

The LION MEDICINE CO.
87 King St. East, TORONTO.

A Reduction
In the Price
Of

Gibbons' Toothache Gum

To 65c. per doz.

To be had of all Wholesale Druggists.

J. A. GIBBONS & CO.,
TORONTO. - - BUFFALO.

MINARD'S "KING OF PAIN." LINIMENT

Sold from Halifax to Victoria

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HALIFAX { Brown & Webb. Simson Bros. & Co. Forsyth, Sutcliffe & Co.
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34 inches high. Top can be adjusted to any angle or height Revolving Case 15 x 15 x 12 inside. Holds about 30 vols Law size. **Strong well finished Metal Base and Sides With Solid Oak Shelves and Top.— 100,000 now used.** Sent knocked down (20 lbs). **On approval.** Address:
Marsh M'f'g Co.
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Agents Wanted.

PATENTS

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Gray's

CASTOR-FLUID
For the hair.

DENTAL PEARLINE
An excellent antiseptic tooth wash.

SULPHUR PASTILLES
For burning in diphtheritic cases.

SAPONACEOUS DENTIFRICE
An excellent antiseptic dentifrice.

These Specialties

All of which have been well advertised, more particularly the "Castor-Fluid," may be obtained at all the wholesale houses at Manufacturer's price.

HENRY R. GRAY

ESTABLISHED 1859.

Pharmaceutical Chemist

22 St. Lawrence Main Street
(Cor. of Lagauchetiere)

MONTREAL

A PERFECT TOILET GEM.

ARECA NUT TOOTH SOAP

The drug trade of Canada will find this one of the most satisfactory articles on the market. The package is convenient and attractive.

Kindly make sure the ARECA NUT TOOTH SOAP offered you is made in Winnipeg. The genuine is for sale by

Lyman Bros. Co., Toronto,
Elliot & Co., Toronto,
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Lyman, Knox & Co., Montreal,
Lyman Sons & Co., Montreal,
Kerry, Watson & Co., Montreal,
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THE

MARTIN, BOLE & WYNNE CO.,

WINNIPEG.

W. A. GILL & CO. COLUMBUS, OHIO. U.S.A

PLAIN, LACQUERED

BOXES

MAKE THE BEST SEAMLESS TIN

AND DECORATED

•IN•THE•MARKET•

For sale at Manufacturers' Prices by the leading wholesale druggists and druggists' sundrymen throughout Canada.

JOSEPH E. SEAGRAM

Waterloo, Ontario.

MANUFACTURER OF

ALCOHOL

Pure Spirits

Rye and Malt Whiskies

"OLD TIMES" AND "WHITE WHEAT"

American Pharmaceutical Association.

The American Pharmaceutical Association will hold its forty-third annual meeting August, 14th to 21st, at Denver, Col. The Committee on Education and Legislation has prepared its set of queries, which bear on the educational and legal status of pharmacy in America. Here are the queries :

POISON LEGISLATION.

(1) The legal restrictions on the practice of pharmacy of English-speaking countries are primarily based upon the principle of protecting the public against the indiscriminate sale and use of poisons.

It is desirable to have a collective report of the poison laws of the States, including separate acts as well as the poison sections of the various pharmacy laws, the important provisions, with suggestions for their codification, to be presented in tabulated form.

(2) Present a list of proprietary articles containing poisons ; medicinal, antiseptic, insecticidal, or of general or popular use, giving the character of the poisonous ingredients and approximately their proportion ; also state whether or not the packages contain any reference to or caution against the dangerous character of the contents

(3) The committee of this section desires to present a statistical report on the number of deaths and percentage of death rate occurring during a stated period (one or more years) from the use of poison, stating (1) kind of poison, (2) in the form used, (3) accidental, (4) suicidal, or (5) homicidal.

This information may be obtained from the coroners, and should be transmitted to the secretary of this section.

REGISTRATION STATISTICS.

This committee desires to present a collective report embracing the following information from every pharmacy board in North America, based upon the year 1894 :

(4) Registration of Pharmacists or Licentiates.

(*a*) The total number of candidates for registration as registered pharmacists or licentiates.

(*b*) The total number of registered pharmacists or licentiates.

(*c*) The number of graduate candidates.

(*d*) The number of graduates registered on diploma.

(*e*) The number rejected on diploma.

(*f*) The number of graduates registered by examination.

(*g*) The number rejected by examination.

(*h*) The number of non-graduates registered by examination.

(5) Registration of Assistants.

(*i*) The total number of candidates for registration.

(*k*) The total number of persons registered as assistants during the year 1894.

(*l*) The number of graduate candidates.

(*m*) The number of graduates registered on diploma.

(*n*) The number rejected.

(*o*) The number of non-graduates registered by examination.

(6) Registration of apprentices.

(*p*) The number of apprentices registered.

(*r*) The educational requirements.

(*s*) The age.

COLLEGE ATTENDANCE.

It is asserted that the great multiplication of drug stores is, in a measure, owing to the large number of graduates turned out by the pharmaceutical schools and colleges.

(7) Present statistics showing the number of students in attendance at the pharmaceutical schools and colleges in North America. Also the number graduated during the same period. To attain uniformity in the proportion of graduates to students, the period covered by one school year, 1893-94, should be taken.

(8) Should scholastic education be required preliminary to entrance into pharmaceutical schools or colleges? If so, in what degree is it practicable of enforcement? Should such education be a requirement for registration of apprentices by the State boards of pharmacy preliminary to eligibility for examination as assistant and pharmacist?

(9) Present an exhibit of practical experience requirements of all the pharmacy laws. What should be the minimum period required for the respective grades of registrations, and how can this be defined as applied to practical experience in a pharmacy or "drug store"?

REGISTRATION REQUIREMENTS.

(10) What States recognize more than one grade of licentiates, and by what titles are the several grades distinguished? When two grades of licentiates are recognized, what are the age requirements?

(*a*) For the higher or pharmacist's grade?

(*b*) For the lower or assistant's grade?

(11) In what States is it customary to present the same list of questions to candidates for both grades, the grade or certificate granted depending upon the percentage of correct answers returned by the candidates? What are the advantages and defects of this method?

(12) To what extent is it customary for pharmacy boards to require candidates to demonstrate by practical work their fitness for registration? Is it possible under existing circumstances to greatly extend the principle of practical examinations?

(13) Where experience is a requirement for graduation or registration, should a distinction be made between experience gained in a city pharmacy and that obtained in a country drug store, and what should be the ground of such a distinction when made? Also, to what extent, if any, should menial service in a drug store, unconnected with compounding, be taken as experience?

(14) What pharmacy boards and what institutions teaching pharmacy make any of the above-named distinctions as to what constitutes "experience in a drug store"?

The section on scientific papers is also out with its list of queries. Here it is :

(1) Is the thin, green, wild-cherry bark really more valuable therapeutically than the older and thicker brown bark? Make comparative assays.

(2) Do all the well-known brands of quinine sulphate conform to the tests of the U.S.P., 1890?

(3) Devise a method of assaying digitalis that yields the true amount of the one or more active principles of the drug.

(4) Separate, purify, and describe the various active ingredients of digitalis.

(5) Is English digitalis as superior to the German as the difference in price would indicate?

(6) What percentage of the U.S.P. pepsins of the market come up to the Pharmacopœial requirements?

(7) Determine in case of such drugs as can be secured whether they yield products of greater value therapeutically when percolated in the fresh than in the dried state.

(8) Compare all the well-known methods of assaying belladonna leaves, belladonna root, and henbane leaves, applying titration by volumetric acid solution to each, and determine which method extracts the most alkaloid from the drug.

(9) Do the same for coca leaves and ipecac.

(10) Determine the relative value of western and southern senega.

(11) What is the quantity of calcium sulphide dispensed by pharmacists?

(12) In what cases can acetic acid be advantageously substituted for alcohol in the exhaustion of the drug?

(13) Is Alexandria senna superior to Tinnevelly senna?

(14) Give an account of the various nostrums that depend for their efficacy and value upon acetanilide, and, if possible, give their analysis.

(15) Is the decidedly different yield of pilocarpine due to two species of pilocarpus? If so, what are the species and what are their relative contents of alkaloids? If not, why has pilocarpine been so scarce?

(16) Do ignatia beans possess any superiority over nux vomica buttons?

(17) Give the relative alkaloidal value, *i.e.*, percentage of cornutine of Keller, of Spanish, German, and Russian ergot.

(18) Examine and report upon the various kinds of quinine sulphate pills dispensed by pharmacists. Do they contain the claimed amount of quinine sulphate, and do any of them contain cinchonidine sulphate?

(19) Honduras sarsaparilla is said to be superior to Mexican ; is this supported by facts? If so, demonstrate it.

(20) What is the quality of oil of peppermint dispensed by pharmacists?

(21) Does calendula possess sufficient therapeutic power to merit its recognition as an official drug?

(22) What is the relative value of guarana and kola nuts as to their content of caffeine, and do they differ therapeutically in any particular?

(23) To what extent is cottonseed oil used as an adulterant in preparations used by pharmacists?

(24) Are all chemicals imported from Europe as chemically pure as they are generally claimed and believed to be? A full report upon those that are most generally used would make interesting reading.

(25) Does the aloin of the market conform to the requirements of the U.S.P.?

(25) Cali nuts are being offered when Calabar beans are called for. Make a comparative chemical study of the two seeds.

(27) A microscopical examination of the root of solanum carolinense and further chemical work upon its alkaloid are desirable.

(28) To know the relative antizymotic power of boric, benzoic, and salicylic acids would be very valuable; also, the extent to which they may safely be employed for the preservation of infusions, mucilages, fruit juices, etc.

(29) Much of the orange-flower water and rose water of the market is said to be made from essential oils. Is such the fact, and how does the product compare with that made by distillation?

(30) Tests for the quality of insect powder are desired.

A Model Drug Store.

The model drug store of our day is an exception rather than a rule, and perhaps a few suggestions along this line would interest some druggists and clerks, and, perchance, may be of practical value.

What is a model drug store?

We shall endeavor to cover the entire ground in ten distinct answers, and we firmly believe that if these were lived up to by some of our pharmacists, we should have more well-conducted drug stores, and fewer lazy. half-awake, half-asleep pharmacists.

1. A model pharmacy is one in which the proprietor and clerk are on good terms, and are working for each other's welfare.

2. A model pharmacy is one in which the prescription desk is put to its proper use.

3. A model pharmacy is one in which there is a place for everything, and where everything is kept in its place.

4. A model pharmacy is one in which the show cases, sponge racks, bottle shelves, windows, and counters are kept perfectly clean at all times.

5. A model pharmacy is one in which the floor is scrubbed white.

6. A model pharmacy is one in which the shelf bottles are always well filled, and a customer does not have to wait until the clerk runs down cellar or upstairs to fill a bottle.

7. A model pharmacy is one in which the proprietor and clerk are at all times pleasant, courteous, and obliging.

8. A model pharmacy is one in which you will not find a crowd of hangers around, smoking and spitting.

9. A model pharmacy is one in which the proprietor and clerk seek to make it as pleasant as possible for their customers.

10. And, last, but not least, a model pharmacy is one where only pure drugs are dispensed, and where the utmost precaution is taken in dispensing medicines. —*Z. Pater, in The Spatula.*

Paris Green.

Attention is directed to the advertisement of the Canada Paint Co. in this issue. This company are extensive manufacturers of Paris green of the best quality. They report exceedingly large sales this season.

Optical Institute.

The Optical Institute of Canada, of which we have had occasion to speak in previous issues, announces the resumption of classes for instruction in the science of optics, fitting of glasses, and scientific testing of the eyes. A large number of druggists, graduates of this institute, bear willing testimony to the efficiency of the instruction given in these classes. The classes are held at No. 11½ Richmond street west, Toronto. A post-graduate course will also be held in August, read advertisement.

Fine Perfumes.

Scott & MacMillan, manufacturing perfumers, Mincing lane, Toronto, are putting on the market some very choice goods. Their odors are true to name, and of a very high class, while the styles of packages are of themselves sufficient to command a sale. Their travellers are now on the road with full lines of samples.

The Kessler Drug Co.

An advertisement of this company appears on page 136 of this issue. They prepare a line of goods peculiarly adapted to the drug trade, and they endeavor to push the sales strictly through this channel.

Incense Fumigatory for Large Halls.—To remove musty odor burn on a hot shovel the following (*Nat. Drug.*): Cascarilla, four parts; benzoin, two parts; cloves, one part; potassium nitrate, two parts.

Hydrogen Peroxide in the Atmosphere.—A. Bach thinks that the presence of H_2O_2 in atmospheric air is due to a splitting up of carbonic acid into, first, percarbonic acid, and then into CO_2 and H_2O_2.

Manaceine is a new alkaloid isolated by Brandl (*Zeit. Oest. Apoth. Ver.*) from franciscea uniflora, or manaca. This is in addition to manacine and æsculetine previously discovered. It is a tetanic poison similar to manacine.

Pills of calcium glycerophosphate may conveniently be made (*Merck's Jahresbericht*) by adding to 3.0 grams of the drug, 0.2 gram of tripoli, and making a mass with the aid of syrup of althea, dividing into 30 pills.

WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc., will be inserted once free of charge. *Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.*

ARTICLES WANTED.

WANTED.—FORSION BALANCE PRESENTation Scale, plate glass slide, etc. Send description to J. A. Wallace, Chemist, Brantford.

FOR SALE.

FOR SALE.—A STERLING GENERATOR, REpaired this spring, in first-class condition, been used four years, cheap. W. C. Pilkey & Co.

DRUG BUSINESS ESTABLISHED TWELVE years, first class locality, good family and prescription trade, stock and fixtures in good condition. Splendid opportunity for a young man; will sell at a sacrifice on easy terms. Address, Box 353, Canadian Druggist.

TENDERS WANTED.

PENITENTIARY SUPPLIES.

SEALED TENDERS, addressed, "Inspector of Penitentiaries, Ottawa," and endorsed, "Tender for Penitentiary Supplies," will be received until Saturday, 22nd June, at 12 o'clock noon, from parties desirous of contracting for supplies for the fiscal year 1895-96, for the following institutions, namely:—

Kingston Penitentiary,
St. Vincent de Paul Penitentiary,
Dorchester Penitentiary,
Manitoba Penitentiary,
British Columbia Penitentiary,
Regina Gaol.

Separate tenders will be received for each of the following classes of supplies:—

1. Flour (Canadian Strong Bakers').
2. Beef and Mutton (fresh).
3. Forage.
4. Coal (anthracite and bituminous).
5. Cordwood.
6. Groceries.
7. Coal Oil (Best Canadian, in bbls.).
8. Dry Goods.
9. Drugs and Medicines.
10. Leather and Findings.
11. Hardware.
12. Lumber.

Details of information, together with forms of tender, will be furnished on application to the Wardens of the various Penitentiaries.

All supplies are subject to the approval of the Warden

All tenders submitted must specify clearly the institution, or institutions, which it is proposed to supply, and must bear the endorsation of, at least, two responsible sureties.

DOUGLAS STEWART,
Inspector of Penitentiaries.

Department of Justice,
Ottawa, May 20th, 1895.

WELL ADVERTISED

GOOD MARGINS

Write us to mention in your daily or weekly paper that our remedies may be procured from you.

The Kessler Drug Company.

Canadian Agency, Toronto.

OPTICAL INSTITUTE OF CANADA.

ROOM 10, RICHMOND CHAMBERS,

11½ RICHMOND ST. W., TORONTO.

The next class commences on **Monday, July 1st**; the one following on **Monday, July 15th.**
The course is the most practical given at any school of optics in America.

References to ANY past student.

A POST-GRADUATE COURSE WILL BE HELD IN AUGUST.

Fees, $50.00. Past Students of this Institute, $25.00.

ONTARIO OPTICAL INSTITUTE

(Classes formed each month in Optics and Refraction)
Next Classes, July 4th and 18th.

The teaching embraces everything necessary for an optician to know, to intelligently and satisfactorily detect errors of vision and **properly fit spectacles.**

A Practical Course for Practical Men.

This Advertisement will not appear again this year.
See announcement opposite page 88, April issue.
Read testimonials on page 118, May issue.

The Fee for this Course is $50.00 in Advance

For further information and recommendations from former students, apply to

W. E. HAMILL, M.D., Specialist in Eye Diseases,
Room 11, Janes Building, - **Principal,**
King and Yonge Streets, TORONTO.

THE MONTREAL OPTICAL CO.

The only firm of Manufacturing Opticians in the Dominion.

PRESCRIPTION WORK A SPECIALTY

Country Orders filled with care and promptitude.

If you are dealing in **OPTICAL GOODS,** it will **PAY YOU** to do business with **US.** and, if you are not doing so already, write and get our Catalogue and Price List.

Sovereign . . Lime Fruit Juice

Is the Strongest, Purest, and of Finest Flavor

We are the largest refiners of LIME JUICE *in America, and solicit enquiries.*

For Sale in Barrels, Demijohns, and twenty-four ounce Bottles by wholesale in

TORONTO, HAMILTON, KINGSTON, AND WINNIPEG

SIMSON BROS. & CO., Wholesale Druggists
HALIFAX, N.S.

PARIS GREEN

SEASON 1895

Buyers who have not yet specified their orders are desired to do so as early as possible in order to prevent disappointment.

For Killing Power

Beware of brands said to be just as good as the Canada Paint Co.'s; they will cause you disappointment and loss.

The Canada Paint Co.'s Strictly Pure Paris Green

is the most economical to use as an insecticide, and is guaranteed.

SALES FOR THIS SEASON TO DATE OVER 300 TONS.

Carbonate of Copper

The Fungicide recommended by the Department of Horticulture, put up in 3 oz. packets; two dozen to a case.

STOCK CARRIED IN MONTREAL AND TORONTO.

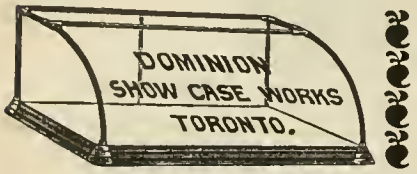
THE CANADA PAINT CO., Ltd.

MONTREAL, - - TORONTO, - - VICTORIA, B.C.

DOMINION ART WOODWORK MFG. CO.,

SUCCESSORS TO WAGNER, ZEIDLER & CO.

HIGHEST AWARDS RECEIVED WHEREVER EXHIBITED



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.. SHOW CASES ..

Of every Description in Nickel, Silver, Walnut, Ebonized, etc.

HARDWOOD STORE FITTINGS, METAL SASH BARS, Etc.

SEND FOR CATALOGUE AND PRICE LIST

SHOW ROOMS, HEAD OFFICE, AND FACTORY, - - WEST TORONTO JUNCTION, ONT.

Fortier's

"Shakespeare"

THE FINEST 5ct. Cigar

EVER OFFERED TO THE PUBLIC.

JUST TRY IT.

IF YOU USE THE

Red Star Toothwash Bottle

You will beat your neighbor, as no other approaches it for beauty.

Scant 2 oz. (looks like a 3 oz.) complete open crown sprinkler at $7.83 net per gross. Sample sent on receipt of 5 cents to pay postage.

T. C. Wheaton & Co., Millville, N.J., manufacturers of Flint, Green and Amber ware, and the largest factors of Homeo. Vials in the world.

RIPANS

One Gives Relief.

No More Bald Heads, No More Grey Hair
CAPILINE
Cleanliness, Beauty & Efficacy are the Properties of this Restorer
Ask your Druggist for it.
50¢

A PERFECT TEA

MONSOON TEA

FINEST IN THE WORLD.
From Tea Plant to Tea Cup in its Native Purity.

PACKED BY THE GROWERS
And sold in the original packages, ½ lb., 1 lb. and 5 lb. caddies.

If your grocer has none, tell him to order from
STEEL, HAYTER & CO.
11 and 13 Front Street East, Toronto

A DRUGGIST'S SPECIALTY.

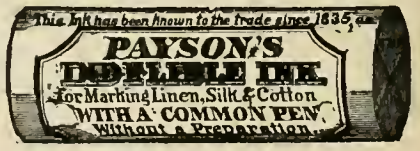
Curtis & Son's Yankee Brand Pure Spruce Gum

Is meeting with the success its high qualities merit.

A TRIAL ORDER SOLICITED.

CURTIS & SON
PORTLAND, ME., U.S.A.

THE OLDEST - THE BEST


This Ink has been known to the trade since 1835.
PAYSON'S
INDELIBLE INK.
For Marking Linen, Silk & Cotton
WITH A COMMON PEN
Without a Preparation.

Trade supplied by all leading Drug Houses in the Dominion.

Piso's Remedy for Catarrh is the Best, Easiest to Use, and Cheapest.

CATARRH

Sold by druggists or sent by mail.
50c. E. T. Hazeltine, Warren, Pa.

Pharmaceutical Notes.

Artificial Indigo.—A patent has been taken out by the Aktien Gesell. für Anilin Fabrik., of Berlin, for the preparation of Indigo. Anthranilic (o-amido-benzoic) acid is fused with caustic alkali out of contact with the air. The fused mass is then dissolved in water, and oxidized by a current of air, when the indigo blue is developed. It is quite identical with natural indigo.—*Apotheker Zeitung.*

Sawdust Absorbent Dressings.—A. Neve, surgeon to the Kashmir Mission Hospital, India, strongly recommends the use of sawdust pads as a staple surgical dressing material. The sawdust is packed in muslin bags, and the pads are readily rendered either aseptic or antiseptic. In practice they are impregnated the day before use with a 1 in 2000 solution of mercuric zinc cyanide, or sterilized in a Cathcart's or Schimmelbusch's oven.—*Lancet.*

Quinoline Rhodanate, a New Antiseptic.—Induced to experiment with sulpho-cyanhydric (rhodanhydric) acid, from the presence of that body in the saliva, which has itself certain antiseptic properties, Dr. Edinger has combined this acid with quinoline, producing pyridin-methyl-rhodanate. Solutions of this body, according to the author, have very energetic bactericidal properties, the specific microbes of cholera and diphtheria speedily succumbing to its influence. The solution is neither odorous nor caustic. A one per cent. solution has also been employed as an injection in gonorrhœa.—*Semaine Médicale; Pharmaceutical Journal.*

Nosophene is a new iodo compound, tetra-iodo-phenol-pthalein, obtained, according to the *Medical Week*, by the action of iodine on phenol-pthalein, which is used in the form of insufflation in acute coryza, chronic rhinitis, and as a dusting powder for eczema. It is a yellow, odorless, tasteless powder, insoluble in water, soluble in ether and in chloroform. It contains 60 per cent. of iodine. It behaves as an acid, and combines with bases to form soluble salts. Nosophene is not toxic, and is said to pass through the body without undergoing decomposition, and therefore without giving rise to excretion of iodine in the urine.

Adulterated Linseed Oil.—It is said that there is at present some quantity of linseed oil on the market adulterated with liver and blubber oils. To detect this admixture, 10 parts of the oil and 3 of commercial nitric acid are mixed thoroughly in a test-tube, and the two layers allowed to separate. If the fish oil be present, the oily layer is dark brown to black in color, whilst the acid has a deep orange red color. If, however, the oil be pure, the oily layer is only a dirty green and the acid a golden yellow color.—*Seifensieder Zeit.; B. C. Druggist.*

The Preparation of Guaiacol.—A fresh patent for the preparation of pure guaiacol has been taken out by a German firm. Veratrol (pyrocatechol di-methyl ether) is heated with equal quantities of alcohol and alkali under a pressure of 10 atmospheres for three hours at 180°C. It is necessary to separate traces of undecomposed veratrol, and the yield is 85 per cent. of the original weight of veratrol.—*Chemiker Zeitung.*

Separation of Synthetic Remedies.—Lenzinger has examined the behavior of several new synthetic remedies when treated according to Dragendorff's shaking-out method. From an acid solution he found petroleum spirit removed guaiacolbenzol, guaiacol salicylate, benzonaphthol, alphol, agathin, salacetol, methylsalol, orthocresalol, paracresalol, metacresalol, benzocresalol, malakin, and thermodin, but traces only of guaiacol cinnamate and naphthol carbonate. Benzol removed salophen, pyrodin, guaiacol cinnamate, lactophenin, β-naphtholcarbonate, gallanol, symphorol Na, Li, and Sr; after previous boiling with hydrochloric acid—neurodin, malakin, thermodin, and traces of analgen. Chloroform dissolved pyrodin, and analgen. From ammoniacal solution, petroleum spirit removed phenocol; benzol, tolypyrine; chloroform, analgen; amylic alcohol, gallanol.—*Pharm. Post; Pharmaceutical Journal.*

Cedar Camphor.—Recent researches have pointed to the non-existence of cedar camphor in cedar wood oil. A small quantity of cedar wood which had been kept in stock for many years was recently distilled and yielded a thick oil, which went almost solid by standing. Through recrystallization from alcohol a body was obtained in fine needles, softening at 78°, and entirely melting at 83°. It appears that the camphor is formed under these conditions, but is not a constituent of normal cedar oil.—*Schimmels' Report.*

Action of Gelatin on Solutions.—Mills and Sawers find that the introduction of gelatin into saline solutions results in the combination of the salts with the gelatin. Chrome alum (potassic) appeared to be taken up unaltered, the resulting compound being quite insoluble in boiling water, but it was slowly dissolved at a gentle heat by an equal weight of acetic acid diluted with about twice its weight of water, the solution leaving an insoluble residue when it dried up. Alumina alum (potassic) was absorbed by gelatin to form a compound, which dissolved slowly in boiling water; nickelous sulphate gave a partly soluble gelatin; cobaltous sulphate a completely soluble one; and cupric sulphate a partly soluble compound.—*Journ. Soc. Chem. Ind.*

New Method of Preparing Saccharin.—A chemical firm in Basle, Switzerland, has patented a new process for obtaining saccharin by transforming thiosalicylic acid into thiosalicyl chloride, and the latter into the corresponding amid-acid. This last is oxidized either with potassium permanganate or other oxidizing agent. The process is said to be more economical than the original.

Stability of Sublimate Solutions.—Vignon pointed out some time ago that 1 per mille solutions of mercuric chloride rapidly decreased in strength, and lost, therefore, their antiseptic power in contact with the air. Tanret now urges (*Bulletin*) that pure air has nothing to do with the matter, and does not cause any precipitation of the mercury. Vignon has taken up the subject again, and now demonstrates that Tanret's conclusions are correct, and that the decomposition is due to traces of alkali, derived either from the water or the glass in which the solutions were kept, and to dust and organic impurities from the air.

Artemisin.—Merck reports that he has found in santonica-seeds, or rather in the mother-liquor from which santonin crystallizes, a beautiful crystalline body which resembles santonin, but is a distinct substance. One of its most marked peculiarities is that it crystallizes with chloroform, the compound being represented by the formula $C_{15}H_{18}O_4$, $CHCl_3$, but the chloroform is dissipated at 80°C. Artemisin melts at 200°C., and dissolves in sixty times its weight of boiling water. Its sp. rot. is $-84.3°$, and it may be easily distinguished from santonin by the iron and sulphuric-acid reaction. When 0.1 gramme of artemisin is dissolved in 1 c.c. of water and the same of sulphuric acid, and a few drops of ferric-chloride solution added, a slight turbidity and intense golden-brown color are produced, whereas santonin gives a characteristic violet color. Merck concludes that artemisin is oxy-santonin, for the molecule differs only from santonin in containing an additional oxygen atom. Whether this principle has any therapeutic properties or not is not stated.—*Chemist and Druggist.*

Purification of Alcohol, Sugar, etc., by Potassium Permanganate.—According to Maumené (*Comptes rendus*), alcohol, wines, syrups, and other organic bodies, and even potable waters, may be purified by the action of potassium permanganate. With impure alcohol, wines (red and white), etc., it suffices to agitate them with an aqueous solution of the permanganate (2 or 3 ccm. of the solution to the litre of alcohol). The purifying action is obtained through the formation of manganic oxides, which are precipitated, finally clarifying and purifying the liquid. The process seems destined to be of great service in refining sugars, etc.—*National Druggist.*

Pharmacy Abroad.

HUNGARIAN PHARMACIENNES. — The Hungarian Minister of Education has issued a note to the Senate of the University of Budapest, in which he announces his intention to give his assistance to the efforts which are being made by the Women's Union "Maria-Dorothea" to open the pharmaceutical profession to women, and requests the senate to inform him whether, in their opinion, that step is possible in the existing conditions of pharmacy in Hungary, and, if possible, desirable. A similar note has been sent to the Hungarian Pharmaceutical Association, who have asked their local secretaries to convass the members on the subject, and who intend, before replying to the minister, to discuss the question at their forthcoming annual meeting. An initial difficulty in the way of the admission of women to pharmacy appears to be that the classical education of women is much neglected in Hungary, and the minister is now considering how facilities for the acquisition of the necessary knowledge of Latin can best be given to girls intending to adopt pharmacy as a career. Among Hungarian pharmacists the threatened invasion of their craft by the new pharmacy-woman appears to be regarded with undisguised horror.—*Chemist and Druggist.*

FRENCH PHARMACOPŒIA.—A new edition of the French Pharmacopœia of 1885 has been issued, with a supplement of 100 pages; this edition became official January 10th, 1895. It is interesting to note the new remedy admissions, and the official titles selected for the products bearing proprietary names, as follows:

Antifebrine:	Acetanilide.
Antipyrine:	Analgesine.
Aristol:	Diiododithymol.
Benzonaphthol:	Benzoate de naphthol B.
Dermatol:	Gallate basique de bismuth.
Exalgine:	Methylacetanilide.
Phenacetine:	Acet-Phenetidine.
Saccharine:	Acide anhydro-ortho-sulfamide-benzoique.
Salipyrine:	Salicylate d'Analgesine.
Salol:	Salicylate de Phenol.
Sulfonal:	Acetone-diethylsulfone.

Only two of these products are official in the United States Pharmacopœia, viz.: Acetanilide and Salol.

FRENCH PHARMACISTS ON SECRET REMEDIES.—At the Congress of French Pharmacists, recently held, it was voted, by a majority of 218 against 207, that the total suppression of specialties of the nature of secret remedies was advisable, and that prescriptions should be the only form of such medicines. It was generally agreed that the abolition of the second class of pharmacists should date five years from the present.

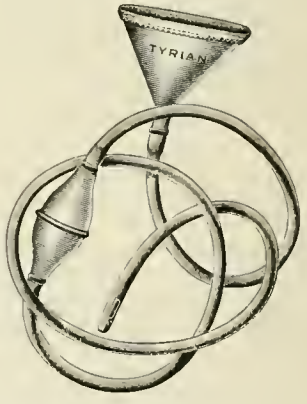
THE PHARMACIST IN WESTERN AUSTRALIA.—Mr. H. J. R. Fitzpatrick contributes to the *Pharmaceutical Journal of Australasia* an article on the above subject, in which he says: The native chemists have no energy, or perhaps inclination, to alter the affairs of their forefathers. The medical man plays a great part in the business of the chemist. He holds a great power, and does not neglect to profit from it. Many run their own shops, and, indeed, they combine, and run their medical practices and dispensaries, only employing managers. They stock the places well, and are purely and simply retail chemists. The chemists do not view the medical man in a too favorable light. They do not receive his prescriptions without giving a heavy commission in return. They must not prescribe, under a penalty of the doctor withdrawing his patronage. Many of the chemists absolutely decline to treat with medical men, preferring to work their own way by prescribing. A Dentists' Act has recently been passed, and all chemists now style themselves as surgeon-dentists, and extract teeth for half a crown. To chemists, I say do not go to Western Australia, unless on a visit, for you will return sadder and, I hope, wiser men.

PHARMACEUTICAL EXAMINATIONS IN JAPAN.—At the two examinations for pharmaceutists held in Tokyo and Osaka, Japan, during 1891—particulars of which appear in the Annual Report, quite recently published, of the Central Sanitary Bureau attached to the Home Department of the Imperial Japanese Government—33 out of 166 candidates passed on the first occasion, and 36 out of 193 on the second. To prevent personation at the examinations each candidate is expected to write his own application for examination, and to let his photograph, taken during the same or previous year, accompany the written application. The number of pharmaceutists licensed during the year was 23, of whom 14 passed the examination, whilst 9 were graduates of the Imperial University. Altogether, there were 2,692 pharmaceutists, 11,849 druggists, and 1,336 manufacturers of medicine in Japan, at the end of 1891.

THE CHINESE PHARMACOPŒIA.—The medicine book of the Celestial Empire includes some remedies which are, to say the least, somewhat peculiar. Snow-water is recommended as a vermifuge, whilst hail-water is considered as toxic. The excrement of bats is a remedy for ophthalmia; amber is a nerve tonic; ink is a diuretic; gunpowder a vermifuge. Gum benzoin is excellent for stomach ache. As this latter product is often adulterated, a simple test of its purity is mentioned by the simple-minded (?) orientals. If pure, they say it will make rats come out of their holes, and that it exercises a great charm on these vermin. White bread is very much employed in certain disorders, and bread-crumb pills are one of the mainstays of the local doctor's prescription book. Verdigris is *the* remedy for skin diseases, and ambergris (which is vomited by dragons) is almost a universal panacea. Elephant-skin plasters cure most wounds, paper ashes are a favorite astringent, and dried scorpion and horse hoofs are prescribed for a crowd of disorders. It is possible that an account of serum therapy and preventive inoculation might amuse our Celestial cousins almost as much as an account of their remedies amuses us.—*British and Colonial Druggist.*

New Patents.

TYRIAN STOMACH TUBES. — Stomach tubes have long been used by physicians, and we here show an illustration of a new one gotten up by a well-known manufacturer of druggists' sundries. They are made of a high grade of rubber, the tube itself being about five feet in length. It



is made either with or without bulb, as may be desired, and both types are furnished with a rubber funnel, stiffened and reinforced to keep its shape. Manufactured by the Tyer Rubber Co., Andover, Mass.

INSECT POWDER BLOWER.—An insect powder blower consisting of an elastic bulb provided with an opening, a filling funnel provided with a nipple and having an annular flange surrounding the same at the base of the main portion of the funnel, the nipple being inserted into the opening, a retaining ring placed over the nipple inside the bulb so as to confine the portion of the bulb surrounding the opening between the ring and the annular flange, and a nozzle inserted into the aperture of the nipple and extending beyond the funnel. Manufactured by Sidney Meren, New York, N.Y.

PESSARY.—A pneumatic pessary comprising a circularly disposed air tube having walls of rubber and a yielding diaphragm of thin rubber or the like stretched horizontally between the walls of the air tube, and having a central opening. Manufactured by Walter F. Ware, Camden, N.J.

THIS PACKAGE CONTAINS FOUR FELTS
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SUPERSEDES
Fly Paper and all other
POISONS,
Being Convenient and
EFFECTIVE
DIRECTIONS.
Place one of the Felts open a dish or plate; keep wet with water. Use only enough water to soak the Felt. Flies will drink the poisoned water off the Felt and die immediately.
Placer un de ces Feutres au-dessus d'un plat ou assiette; tenez-les humides avec de l'eau. Use seulement assez d'eau pour tremper le Feutre. Les mouches boiront l'eau empoisonnée, sortiront du Feutre et mourent immédiatement.
CAUTION.—Should the liquid be swallowed by accident at once administer in large doses, Lime Water, Flaxseed Tea, or Iron Rust, followed by an emetic and drinks of Milk or Flour and Water.
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CHEVRIER

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Formulary.

INSECT STINGS, REMEDY.

A paint for the stings of insects, in which ammonia is kept in close and prolonged contact with the affected part, is prescribed as follows:

R	Aq. ammoniæ	ɱ el
	Collodion	gr. l
	Acid salicyliei	gr. v

A few drops to be applied to each bite or sting.—*Medical Chronicle.*

ELIXIR DENTIFRICE AND TOOTH POWDER.

M. Viau advises the following as an antiseptic wash and powder for the teeth, which he claims to be particularly valuable in syphilitic affections of the mouth:

DENTIFRICE.

	Parts.
Salicylic acid	6
Chloroform	60
Tincture of benzoin	60
Tincture of canella	60
Simple elixir, q. s. ad	1000

Mix. Two teaspoonfuls in a tumbler of water.

POWDER.

	Parts.
Magnesia	45
Precipitated chalk	45
Potassium chlorate	25
Essence of anise	1

Mix. Use with the elixir.—*National Druggist.*

DEPILATORIES

are always in demand. The popular product is sulphide barium, made into a paste with oxide zinc, amylum, and water; applied for half an hour and removed by washing. The following was lately furnished by a French journal:

	Parts.
Alcohol	12
Iodine	¾ of 1
Collodium	35
Turpentine	1½
Castor oil	2

This solution is applied daily for three or four days, and the result is said to be satisfactory.

FURNITURE POLISH.

Ammonium oleate	2 oz.
Ammonia, 16°	2 "
Shellac varnish	6 dr.
Boiled linseed oil	6 "

Mix the ammonia and oleate, add the shellac, and shake well; then add oil, and shake thoroughly.

Mr. Edel states that ammonium oleate occupies a field peculiarly its own, and in this field has a wide range of usefulness. It is easily and cheaply prepared, is permanent, can be diluted as wanted, and for cleaning in the laboratory it is superior to any preparation he has ever used.—*American Druggist.*

INK FOR GLASS.

The following formula yields an ink which will write easily on glass, and should prove of service in laboratory work:

	Parts.
White lac	10
Venice turps	5
Turpentine	15
Powdered indigo	5

The first three ingredients are mixed and melted, and the indigo is added. The writing is unaffected by water.—*Bulletin.*

INSECTICIDE.

The fumes are destructive to insect life, but not to plants in conservatories, as it contains a large percentage of nicotine.

R	Nicotine (crude)	12 parts
	Camphor	30 "
	Oil of spike	1 part
	Methylated spirit	to 100 parts

This should be used with great care, as the fumes are very irritating and poisonous.—*British and Colonial Druggist.*

TWO NEW PERFUMES.

From the *Seifen-Fabrikant* we extract the following formulæ for new handkerchief extracts:

Violet extract	600	parts.
Jasmin extract	450	"
Cassie extract	300	"
Rose extract	50	"
Tuberose extract	25	"
Tincture of American musk	25	"
Tincture of musk	2	"
Oil of geranium	3	"
Attar of rose	2	"
Oil of cedar wood	4	"
Absolute alcohol	15	"

Mix.

KADSURA PERFUME.

Extract of rose, crude	2000	parts.
Extract of jasmin	2000	"
Extract of orange	500	"
Extract of violets	500	"
Extract of iris root	300	"
Tincture of musk pod (*Moschus-bentel*)	300	"
Tincture of musk	100	"
Tincture of tonka bean	150	"
Tincture of American musk	70	"
Tincture of vanilla	50	"
Tincture of cinchona	10	"
Tincture of styrax	10	"
Oil of bergamot	50	"
Oil of lemon	50	"
Geranium oil	15	"
Patchouli oil	10	"
Sandalwood oil	8	"
Clove oil	5	"
Oil of neroli	6	"
Oil of bitter almond	5	"
Oil of wintergreen	5	"
Oil of absinth	2	"
Absolute alcohol	300	"

Mix.

—*National Druggist.*

AMMONIA CLEANSING COMPOUNDS.

Many inquiries are received in the course of a year for a formula for an ammonia cleansing compound, the object sought for being the preparation of an article that can be used as a general cleansing agent. Frank Edel has been experimenting with ammonia soaps and ammonia oleate—the latter made by reacting on ammonia water with oleic acid. With regard to the former, he states that it is necessary to use alcohol if it is desired to make a clear soap. The ordinary method of mixing the oleic acid with alcohol and this with ammonia in excess does not, however, furnish a satisfactory product, and he recommends the process which follows, viz.:

AMMONIUM OLEATE.

Oleic acid	1 oz.
Alcohol	1 "
Aqua ammonia, 16°	14 "

Pour the acid into a pint bottle; mix the alcohol and ammonia, and pour into bottle containing acid. Cork tightly, and allow to stand a week or more until saponification is complete.

Mr. Edel says this furnishes a product superior to that made by any other means he has tried hitherto. It can be diluted with ammonia, or water, as wanted, and is the product referred to in succeeding formulas as ammonium oleate.

LABORATORY CLEANSING COMPOUND.

Powdered pumice stone	2 oz.
Ammonium oleate	3 "
Aqua ammonia, 16°, to make	Oj

Shake before using.

Used for cleaning mortars and graduates.

The following is recommended for a

LIQUID SHAMPOO.

Ammonium oleate	1 oz.
Borax	2 dr.
Cologne	1 oz.
Glycerin	1 "
Water to make	Oj

This will be found excellent, and not nearly so harsh on the scalp as the ordinary ammonia shampoos.

The following is recommended by the author as a

CLOTH CLEANSING COMPOUND.

Ammonium oleate	2 oz.
Ammonia water, 16°	2 "
Ether	1 "
Benzin	5 "
Chloroform	1 "

Mix the ammonia and oleate, shake well, and add the ether and the benzin, shaking thoroughly after each addition. Lastly, add one ounce of chloroform and shake well. Allow to stand a few minutes, and shake at intervals, when a mixture having the consistency of cream, and showing but little tendency to separate, will result.

PALATABLE CASTOR OIL EMULSION.

Castor oil	1 oz.
Powdered gum acacia	4 drams.
Simple elixir	6 "
Oil of wintergreen	3 minims.
Cinnamon water	4 oz.

Put the powdered acacia in the mortar dry; rub with a little oil; add more oil, then a little water and oil alternately, mixing thoroughly after each addition; then add the simple elixir and enough water to make up to final measure.—*British and Colonial Druggist.*

Photographic Notes

Notes by a Pharmaceutical Camerist.—Photography has but two periods—session and season. In the former all good camerists meet together round lantern-screen and nicotinian shrine to criticize each other's work from the past season, talk bad chemistry and, occasionally, worse physics, and prophesy in regard to the coming season. Well, the session is practically over now, and the 1895 season has commenced. To many others in the trade besides myself this means a fresh period of pleasure and pecuniary profit. It would never do for the pharmacist to speak of all his wares from personal experience; but it is essential that the pharmacist who deals in photographic goods should know how to take a photograph, and most of the tricks and touches which help to make the photograph better than nature and the lens will allow. I maintain that amongst the best assistants to the amateur photographer (whose fancies the chemist particularly cultivates) is the retail chemist and druggist. My object is to help the latter, as far as I can, by noting things that are new in the way of apparatus and materials—notions that are new and of which no one person is the individual repository; therefore, I shall be glad if any pharmaceutical camerist will communicate to me for publication in this column ideas which he has found to be useful in cultivating the photographic trade. Perhaps, it may be an improved formula for a developer, or what not; it may be a difficulty solved, or which requires solution—anything, in short, practical and useful in photographic trade.

Every time I go to Canterbury I try to get good plates of those rare old stained-glass windows for which the cathedral is noted, and I have never been proud of my success; there is so much blur in the plates from halation—that eternal bugbear which spoils many an otherwise perfect picture. It generally happens, too, that the pictures sacrificed to halation are those which one cannot coat with a composition, because they are carried in the hand-camera. Once I was in that fix at the top of Ben Nevis; hence I never show my picture of the interior of the observatory there. I, therefore, welcome the appearance of anti-halation plates. These are made by R. W. Thomas & Co. (Limited), Thornton Heath, according to Oakley's method, for which patent protection is asked. I tried these plates during the Easter holidays, and the results are excellent. My plan was to try the anti-halation and ordinary plates with the same light and same time, and where with the ordinary plate I got beautiful examples of halation, with the Oakley-Thomas plate I had precise pictures. My only objection to the new plate is that it prints somewhat slowly; but better that than no print at all. The plates are made medium and ultra rapid, and require no special manipulation, except that the alum-bath must not be omitted on any account, otherwise frilling takes place. I judge that the anti-halation medium in this case is a galatine film dyed with a non-actonic crimson dye, and applied to the plate before the sensitive film so that the latter does not mix with the former. Perhaps a few notes on the methods of preventing halation may be useful at the beginning of the season. The common way is to use any backing such as *Teapes' Backing Preparation*, which is much in request:

Mucilage	℥j.
Caramel	℥j.
Burnt sienna (ground in water)	℥ij.
Well mix, and add spirit	℥ij.

The method of using is to place a portion on the back of the plate and distribute evenly by means of a squeegee. The coating is then either allowed to dry or a piece of paper is placed over it before putting into the dark slides. The preparation should be put up in collapsable tubes, holding about 4 oz., and retailed at 1s. Before developing the backing has to be washed off with a damp sponge. A much better preparation is "anti-halation fluid," the formula for which is:

Hard soap (in fine shavings)	℥ss.
Spirit	℥x.

Digest at a temperature not exceeding 70° F., agitating occasionally for seven days. Filter, and dissolve in the filtrate:

Erythrosin	gr. 1.
Aurin	" 1.

Paint on the back of the plate with a large camel's-hair brush, and allow to dry.

The great advantage of this fluid is its quick-drying property and the fact that it does not require to be removed before developing, as its presence in the developer is rather beneficial than otherwise on account of its deep ruby color. It should be put up in 2-oz. bottles, which sell at 1s.

Backing Papers consist of pieces of ruby or black paper cut a trifle smaller than the plate. They are intended to be stuck in optical contact with the back of the plate. Some are sold ready gummed, and only require wetting and squeegeeing to the glass. Papers are not so effectual generally as the methods described above. It is worth remembering that when halation has occurred, the dense portions can be much reduced by rubbing with a piece of lint moistened with methylated spirit.

Elliott's Barnet bromide-paper is one of the newest printing-papers, and is so easily worked that it is sure to give satisfaction when recommended to customers—at least that is my experience. It has a pleasing matt surface, and, when finished, closely resembles a platinum print. It only requires an exposure of a few seconds to an ordinary gas flame. The best developer to use is metol, which does away with the acid-baths necessary with ferrous oxalate. The formula is:

A.

Metol	gr. 50
Sodium sulphite	℥j.
Potassium bromide	gr. vj.
Water	℥x.

B.

Potassium carbonate	℥j.
Water	℥x.

For use, mix 3 parts of A with one of B. Well fix in "hypo," 4 oz. to the pint.

I notice that a correspondent of the *Amateur Photographer* strongly recommends amidol for bromide-paper generally. His directions are: Dissolve 50 grammes of sodium sulphite in 1 litre of water, making a 5 per cent. solution; take 100 grammes of this, and add ½ gramme amidol; 4 or 5 drops of 10 per cent. solution of bromide potassium may be added. In portraits on Eastman's platino-bromide paper, the most splendid velvety black is produced. The addition of water produces greyer tones.—*Chemist and Druggist.*

Standard Photographic Sizes.—The "whole-plate," the "half-plate" (more than half the size of a "whole-plate"), and the "quarter-plate," less than half the size of a "half-plate," had, we have been told, their origin in the days of the daguerreotype, the dimensions being those of the sizes of certain standard plates of copper. Whatever may be the origin of them, the fact remains that we have with us certain "standard photographic sizes," and, further, that the existence of these standard sizes has been, and is, highly detrimental to photography as art, whether "decorative" or "fine." . . . There is a difference between standard sizes of plates and standard sizes of prints. In the matter of plates, it is a question merely of convenience. The size of the plate ought not of necessity in any way to decide that of the print, but the mischief of the thing is that it does. Nine out of ten amateur photographers, apart from "carte-de-visite" and "cabinet" sizes, trim their prints as nearly to the size of the negatives from which they are taken as is practicable, with the result that the standard sizes of plates determine the dimensions of prints. . . . The modern custom of offering for sale sensitized papers of various kinds, ready cut to standard sizes, has, undoubtedly, had much to do with the evil of which we write. It cannot be too strongly impressed on the photographer that in prints there should be no standard size, nor should there be any attempt to fix a ratio of length to breadth. Each photograph should be treated on its own merits, and anything superfluous should be ruthlessly trimmed from top, bottom, or one side or the other. Although it would seem that, on the average, the length of pictures should be fully 50 per cent. greater than the breadth, it does not follow that every picture should be at least half again as long as it is broad. Indeed, there are a few subjects that are best treated by a square, or even a circular form. — *W.K.B., in Photography: Pharmaceutical Journal.*

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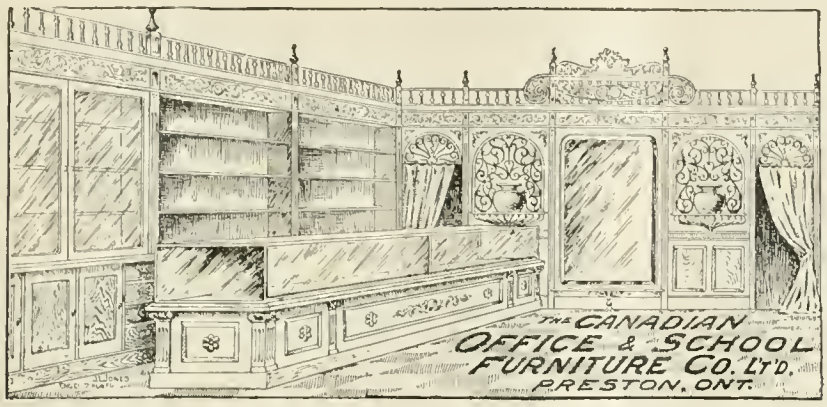

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Commercial.

Camphor.

A camphor famine is threatened as a result of the war between Japan and China. The price of camphor has rapidly advanced, and Japan is placing the most severe restrictions upon its export. Much of the camphor is held by a syndicate. Should a warm summer bring cholera and dysentery, the demand for camphor will be very great, and its scarcity will not only interfere with many medical compounds, but will hinder the manufacture of smokeless gunpowder, in which camphor largely enters as an ingredient.

Ginseng.

The demand for ginseng in China is increasing, and the price has advanced to such an extent that farmers and others in rural districts who market the root will be well paid for their trouble. It is worth from $2 to $4 per pound.

Cod-Liver Oil.

The following statistics of the cod fisheries of Norway, and production of cod-liver oil and livers for industrial oils from 1888 to 1895, have been compiled from official reports by Joh. Rye Holmboe, Tromso, Norway, and furnished to THE CANADIAN DRUGGIST for publication :

PRODUCTION OF COD-LIVER OIL—IN HECTOLITRES.

District.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	Average 1888-94.	1895. 30 April.
Lofoten	16,100	12,900	16,700	18,200	8,100	18,600	12,300	14,700	12,300
Tromso Amt.....	450	560	222	100	1,154	2,344	1,729	974	681
Vesteraalen	2,233	1,168	1,535	707	425	3,940	2,047	1,772	1,225
Ydersiden	744	560	250	300	630	625	482	513	879
Nordland.....		31		23		95		21	
Vestlandet *.....	9,000	5,700	9,700	5,985	7,850	6,196	2,500	6,705	1,205
Finmarken		4,267	1,400	772	3,899	2,076	4,168	2,369	394
	28,527	25,186	29,807	26,087	22,319	33,876	23,226	27,004	16,684

* Nordmore, Sondmore, and all southern districts.

The above figures represent crude oil. 100 hectolitre crude will give from 70 to 75 barrels (25 gallons) refined (non-freezing) oil ready for export.

YIELD OF LIVERS FOR OTHER OILS—IN HECTOLITRES.

District.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	Average 1888-94.	1895. 30 April.
Lofoten	38,000	23,500	58,500	22,700	23,000	31,500	14,000	30,171	11,000
Tromso Amt	3,230	3,489	4,436	2,750	5,757	4,643	1,315	3,660	308
Vesteraalen	6,100	3,700	5,461	4,075	10,140	6,810	4,108	5,771	1,515
Ydersiden	7,336	4,871	8,200	5,265	10,044	8,965	4,259	7,977	3,156
Nordland	2,321	2,093	3,006	1,697	2,690	3,194	800	2,257	730
Vestlandet *.....	4,570	27,060	17,995	7,485	10,750	26,824	10,791	15,008	1,712
Finmarken	20,293	58,925	38,104	29,172	54,148	35,044	15,600	35,008	540
	81,850	123,638	135,702	73,144	117,129	116,980	50,873	99,902	19,051

* Nordmore, Sondmore, and all southern districts.

100 hectolitres raw livers give about 40 barrels oil (about one-third each of raw medicinal, light, and light brown), and 10 barrels boiled (black) tanner's oil (bruntran).

It will be seen from the above that this year's production of cod-liver oil is 10,320 hectolitres below the average, and 6,542 hectolitres below 1894. The livers in Finmarken being very lean, and the fishing up till date a failure, it is certain that the production of cod-liver oil from that district will not nearly fill the deficiency.

It must be remembered, also, that the enormous production in 1893 left over considerably large stocks to be cleared in 1894, whilst stocks of old oil were very nearly exhausted at the commencement of the present year.

On account of the high prices, the demand this season has been rather limited, and no large sales have been reported (April 30th). It is probable, therefore, that the market will keep firm, with an improving demand as the time for foreign importers to fill their autumn demands draws nearer.

The Opium Yield.

Counting only on a maximum yield of 4,000 couffes for the whole of Turkey, there is estimated to be—taking into account the existing stock of about 6,000 cases in the interior of the vilayet of Aidin, at Smyrna, Salonica, Constantinople, London, New York, and Philadelphia—a total of 10,000 couffes, which is amply sufficient for pharmaceutical and special consumption for a year and a half, this consumption never having exceeded in a year more than 5,500 cases on the average. It should also be noted that Persian opium is plentiful on the consuming markets. When the prices of Turkish opium exceed a certain limit, which is the case in London at the present time, then Persian opium is sold in preference to that of the Ottoman Empire. If the forthcoming crop should be a good one, the total production of Turkey can easily reach 8,000 couffes, which will bring the quantity available for consumption in the coming year, 1895-96, to the very respectable figure of 14,000 couffes. It is this large quantity at disposal which explains the little trouble taken by exporters to follow the speculation which has been manifested recently on the Smyrna exchange.—*Foreign and Colonial Importer.*

Paris Green.

Immediately after our issue of last month, the price of Paris green took a sudden change, and the price is likely to keep up for the remainder of the season, as any "green" imported from England now would be too late for this season's consumption.

The annual consumption of Paris green in Canada is about 400 tons. There are two manufacturers, one in Toronto and one in Montreal. Within a few days the price advanced about 100 per cent., owing to a shortage in stock and a shortage of arsenic, the principal ingredient. In the United States the poison is controlled, like nearly every other commodity, by a trust, and this combination had advanced the price to about 26 cents per pound.

Tariff Changes.

The following are the tariff changes on goods affecting the drug trade :

Spirituous or alcoholic liquors, distilled from any material, or containing or compounded from or with distilled spirits of any kind, and any mixture thereof with water for every gallon thereof of the strength of proof, and when of a greater strength than that of proof at the same rate on the increased quantity that there would be if the liquors were reduced to the strength of proof. When the liquors are of a less strength than that of proof the duty shall be at a rate herein provided, but computed on a reduced quantity of the liquors in proportion to the lesser degree of strength, provided, however, that no reduction in quantity shall be computed or made on any liquors below the strength of 15 per cent. under proof, but all such liquors shall be computed as of the strength of 15 per cent. under proof, as follows :

(*a*) Ethyl alcohol, or the substance commonly known as alcohol ; hydrated oxide of ethyl, or spirits of wine ; gin of all kinds, n.e.s.; rum, whiskey, and all spirituous or alcoholic liquors, n.o.p., amyl alcohol, or fusel oil, or any substance known as potato spirit or potato oil :

methyl alcohol, wood alcohol, wood naphtha, proxylic spirit, or any substance known as wood spirit or methylated spirits, absinthe, arrack or palm spirit, brandy, including artificial brandy and imitations of brandy, cordials and liquors of all kinds, n.e.s.; mescal, pulque, rum shrub, Schiedam and other schnapps; Tafia, Angostura, and similar alcoholic bitters or beverages, $2.25 per gallon.

(*b*) Spirits and strong waters of any kind, mixed with any ingredient or ingredients, as being or known or designed as anodynes, elixirs, essences, extracts, lotions, tinctures, or medicines, n.e.s., $2.25 per gallon and 30 per cent. *ad valorem.*

(*c*) Alcoholic perfumes and perfumed spirits, bay rum, Cologne, and lavender waters, hair, tooth, and skin washes, and other toilet preparations containing spirits of any kind, when in bottles or flasks containing not more than four ounces each, 50 per cent. *ad valorem.* When in bottles, flasks, or other packages containing more than four ounces each, $2.25 per gallon and 40 per cent. *ad valorem.*

(*d*) Nitrous ether, sweet spirits of nitre, and aromatic spirits of ammonia, $2.25 per gallon and 30 per cent. *ad valorem.*

(*e*) Vermouth, containing not more than 30 per cent., and ginger wine, containing not more than 26 per cent. of proof spirits, 80 cents per gallon; if containing not more than these percentages respectively of proof spirits, $2.25 per gallon.

Condensed milk, 3¼ cents per pound.

Condensed coffee, condensed coffee with milk, milk foods, and all similar preparations, 35 per cent. *ad valorem.*

Paints and colors, ground in spirits, and all spirit varnishes and lacquers, $1.12½ per gallon.

Sugar candy, brown or white, and confectionery, including sweetened gums, ½ cent per pound and 35 per cent. *ad valorem.*

Some New Formulæ for Galenicals.

The recently published "Erganzungstaxe zur Konigl. Preuss. Arzeitaxe fur 1895," from the Grand-Duchy of Baden (says the *Pharmaceutische Centralhalle*), has published, among others, the following formulæ, which we think worthy of reproduction:

AQUA CARMINATIVA.*

Chamomile flowers	5 parts
Curled mint leaves, coarsely powdered	2 parts
Bruised kümmel	2 parts
Bruised fennel	2 parts
Lemon peel, cut medium fine	2 parts
Unripe orange peel, cut fine	2 parts
Alcohol	15 parts

Moisten, let stand for twenty-four hours, and then distil off to 10 parts. "Wind water" is a muddy liquid of strong odor.

*Our German contemporary translates this as "*Windwasser* (wind water), which, while not quite so elegant as "carminativa," is far more expressive, and suggestive of the uses and the virtues of the preparation.—Editor *National Druggist.*

ELIXIR OF CALYSAYA.

Cinchona bark	720 parts.
Unripe orange peel	300 parts.
Cardamons	18 parts.
Star anise	90 parts.
Cinnamon	90 parts.
Cloves	60 parts.
Red sandalwood	48 parts.

Macerate for fourteen days with 750 parts of dilute alcohol and 750 parts of water, drain off, press out, and add

Sugar	3000 parts.
Water	2000 parts.

Let stand for several days and finally filter.

LINIMENTUM SAPONATO-CAPHORATUM IODATUM.
(*Iodopodeldoc.*)

Ammonium iodide	10 parts.
Opodeldoc	90 parts.

Melt the opodeldoc with very light heat, and in it dissolve the iodide. If necessary to filter, it should be done with a closed filter.

SAPO-HYDRARGYRI (MERCURIAL SOAP).

Mercury	100 parts.
Grey mercurial ointment	20 parts.

Rub together until the mercury is extinguished (to the naked eye) and then add

Potash soap	1600 parts.
Oil soap, in powder	200 parts.
Lard	200 parts.

Mix thoroughly.

SYRUP OF CODEINE.

Codeine phosphate	2 parts.
Water	30 parts.
Simple syrup	968 parts.

Mix and dissolve.

SPIRIT OF LAVENDER COMPOUND.

Spirit of lavender	80 parts.
Spirit of rosemary	20 parts.
Cassia cinnamon, in coarse powder	1 part.
Nutmeg, in coarse powder	1 part.
Red sandalwood, finely cut	1 part.

Mix and let stand for a week, at from 15° to 20° C., with frequent agitation, then filter.

TINCTURA FERRI ACETICO-FORMICATI.
(*Tinctura tonico-nervina.*)

Calcium carbonate	60 parts.
Formic acid	200 parts.
Water	155 parts.

Mix, and let stand.

Ferrous sulphate	21 parts.
Solution of iron tersulphate	80 parts,
Dilute acetic acid (30°)	320 parts.
Water	80 parts.

Mix and dissolve. Mix the two solutions and add

Alcohol, 90°	400 parts.
Acetic ether	15 parts.

Let stand for some time, or until the calcium sulphate ceases to be thrown down, and then filter.—*National Druggist.*

KAORI.—Name given to a resin (probably kauri) used in skin diseases. It is soluble in alcohol of 90°, and in drying leaves a very adherent varnish.

ANTHION.—Trade name for sodium persulphate, used in photography for the removal of the last traces of the thiosulphate (sodium hyposulphite).

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the *special consideration* of the Business Notices.

That Fly Paper Case Again.

The United States Circuit Court of Appeals of Boston has granted O. & W. Thum Co. a rehearing on each of the seven points asked for in their suit against Boston parties who imitated the salient features of their Tanglefoot.

Artistic Show Cards.

James W. Tufts, Boston, who is widely known as the manufacturer of Arctic and Siberian soda fountains, has always attracted attention for the artistic merit of his catalogues, pamphlets, and circulars, as well as advertising cards. He has recently issued two show cards which outshine any previous work in this line. They were designed by the well known Boston artist, J. P. Hill, are 15 x 20 inches in size, and printed in black and red on "oak tag" stock.

One advertises "Crushed Pineapple," and the other gives a list of popular syrups. They are very striking, and will prove a real attraction at the soda fountain counter.

The Missing Link Finally Found.

Every professional and business man has felt the need of some kind of a receptacle in which could be placed and constantly within reach reference books such as he uses daily. Just such an article has at last been invented, and is shown and described in another column in this paper. We refer to the Marsh Reading Stand and Revolving Case, now used in upward of 50,000 offices and libraries. Instead of having books scattered around and not found when wanted, or having to go to your library every time one is needed, this revolving bookcase places within the reach of your desk all the volumes you may constantly use. It has shelf room for twenty volumes the size of Chambers' Encyclopædia, and a top on which a large dictionary, Bible, or any other heavy book can be placed and adjusted to any angle or height desired. Withal, it is a handsome piece of furniture, and is sent to any one ordering at a low price, and can be paid for after they see and are satisfied with it.

ZYMOIDIN.—New secret antiseptic, introduced by Rosenberg, Berlin. No information as to its nature has yet been established. It comes into trade in three forms, a liquid, an ointment, and a powder.

1 and 8 oz. Toilet Water.

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Corrected to June 10th, 1895.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

Alcohol, gal	$4 37	$4 65
Methyl	1 90	2 00
Allspice, lb	13	15
Powdered, lb	15	17
Aloin, oz	40	45
Anodyne, Hoffman's bot., lbs	50	55
Arrowroot, Bermuda, lb	45	50
St. Vincent, lb	15	18
Balsam, Fir, lb	40	45
Copaiba, lb	65	75
Peru, lb	3 75	4 00
Tolu, can or less, lb	65	75
Bark, Barberry, lb	22	25
Bayberry, lb	15	18
Buckthorn, lb	15	17
Canella, lb	15	17
Cascara, Sagrada	25	30
Cascarilla, select, lb	18	20
Cassia, in mats, lb	18	20
Cinchona, red, lb	60	65
Powdered, lb	65	70
Yellow, lb	35	40
Pale, lb	40	45
Elm, selected, lb	20	21
Ground, lb	17	20
Powdered, lb	20	28
Hemlock, crushed, lb	18	20
Oak, white, crushed lb	15	17
Orange peel, bitter, lb	15	16
Prickly ash, lb	35	40
Sassafras, lb	15	16
Soap (quillaya), lb	13	15
Wild cherry, lb	13	15
Beans, Calabar, lb	45	50
Tonka, lb	1 50	2 75
Vanilla, lb	6 00	7 50
Berries, Cubeb, sifted, lb	30	35
powdered, lb	35	40
Juniper, lb	7	10
Ground, lb	12	14
Prickly ash, lb	40	45
Buds, Balm of Gilead, lb	55	60
Cassia, lb	25	30
Butter, Cacao, lb	75	80
Camphor, lb	65	70
Cantharides, Russian, lb	1 40	1 50
Powdered, lb	1 50	1 60
Capsicum, lb	25	30
Powdered, lb	$ 30	35
Carbon, Bisulphide, lb	17	18
Carmine, No. 40, oz	40	50
Castor, Fibre, lb	20 00	20 00
Chalk, French, powdered, lb	10	12
Precip., see Calcium, lb	10	12
Prepared, lb	5	6
Charcoal, Animal, powd., lb	4	5
Willow, powdered, lb	20	25
Clove, lb	16	17
Powdered, lb	17	18
Cochineal, S.G., lb	40	45
Collodion, lb	75	80
Cantharidal, lb	2 50	2 75
Confection, Senna, lb	40	45
Creosote, Wood, lb	2 00	2 50
Cuttlefish Bone, lb	25	30
Dextrine, lb	10	12
Dover's Powder, lb	1 50	1 60
Ergot, Spanish, lb	75	80
Powdered, lb	90	1 00
Ergotin, Keith's, oz	2 00	2 10
Extract, Logwood, bulk, lb	13	14
Pounds, lb	14	17
Flowers, Arnica, lb	15	20
Calendula, lb	55	60
Chamomile, Roman, lb	30	35
German, lb	40	45
Elder, lb	20	22
Lavender, lb	12	15
Rose, red, French, lb	1 60	2 00
Rosemary, lb	25	30
Saffron, American, lb	75	80
Spanish, Val'a, oz	1 00	1 25
Gelatine, Cooper's, lb	75	80
French, white, lb	35	40
Glycerine, lb	16	18
Guarana	3 00	3 25
Powdered, lb	3 25	3 50
Gum Aloes, Cape, lb	18	20
Barbadoes, lb	30	50
Socotrine, lb	65	70
Asafœtida, lb	40	45
Arabic, 1st, lb	65	70
Powdered, lb	75	85
Sifted sorts, lb	40	45
Sorts, lb	25	30
Benzoin, lb	50	1 00
Catechu, Black, lb	9	20
Gamboge, powdered, lb	1 20	1 25
Guaiac, lb	50	1 00
Powdered, lb	70	75
Kino, true, lb	2 00	2 25
Myrrh, lb	$ 45	$ 48
Powdered, lb	55	60
Opium, lb	4 00	4 25
Powdered, lb	5 75	6 00
Scammony, pure Resin, lb	12 80	13 00
Shellac, lb	45	48
Bleached, lb	45	50
Spruce, true, lb	30	35
Tragacanth, flake, 1st, lb	1 00	1 10
Powdered, lb	1 20	1 25
Sorts, lb	45	75
Thus, lb	8	10
Herb, Althea, lb	27	30
Bitterwort, lb	27	30
Burdock, lb	16	18
Boneset, ozs, lb	15	17
Catnip, ozs, lb	17	20
Chiretta, lb	25	30
Coltsfoot, lb	20	38
Feverfew, ozs, lb	53	55
Grindelia robusta, lb	45	50
Horehound, ozs., lb	17	20
Jaborandi, lb	45	50
Lemon Balm, lb	38	40
Liverwort, German, lb	38	40
Lobelia, ozs, lb	15	20
Motherwort, ozs., lb	20	22
Mullein, German, lb	17	20
Pennyroyal, ozs., lb	18	20
Peppermint, ozs., lb	21	22
Rue, ozs., lb	30	35
Sage, ozs., lb	18	20
Spearmint, lb	21	25
Thyme, ozs., lb	18	20
Tansy, ozs., lb	15	18
Wormwood, oz	20	22
Yerba Santa, lb	38	44
Honey, lb	13	15
Hops, fresh, lb	20	25
Indigo, Madras, lb	75	80
Insect Powder, lb	25	28
Isinglass, Brazil, lb	2 00	2 10
Russian, true, lb	6 00	6 50
Leaf, Aconite, lb	25	30
Bay, lb	18	20
Belladonna, lb	25	30
Buchu, long, lb	50	55
Short, lb	20	22
Coca, lb	35	40
Digitalis, lb	15	20
Eucalyptus, lb	18	20
Hyoscyamus	20	25
Matico, lb	70	75

Senna, Alexandria, lb	$ 25	$ 30
Tinnevelly, lb	15	25
Stramonium, lb	20	25
Uva Ursi, lb	15	18
LEECHES, Swedish, doz	1 00	1 10
LICORICE, Solazzi	45	50
Pignatelli	35	40
Grasso	30	35
Y & S—Sticks, 6 to 1 lb., per lb.	27	30
" Purity, 100 sticks in box	75	75
" Purity, 200 sticks in box	1 50	1 50
" Acme Pellets, 5 lb. tins	2 00	2 00
" Lozenges, 5 lb. tins	1 50	1 75
" Tar, Licorice, and Tolu, 5 lb. tins	2 00	2 00
LUPULIN, oz	30	35
LYCOPODIUM, lb	70	80
MACE, lb	1 20	1 25
MANNA, lb	1 60	1 75
Moss, Iceland, lb	9	10
Irish, lb	9	10
MUSK, Tonquin, oz	46 00	50 00
NUTGALLS, lb	21	25
Powdered, lb	25	30
NUTMEGS, lb	1 00	1 10
NUX VOMICA, lb	10	12
Powdered, lb	25	27
OAKUM, lb	12	15
OINTMENT, Merc., lb. ½ and ½	70	75
Citrine, lb	45	50
PARALDEHYDE, oz	15	18
PEPPER, black, lb	12	13
Powdered, lb	15	16
PITCH, black, lb	3	4
Bergundy, true, lb	10	12
PLASTER, Calcined, bbl. cash	2 25	3 25
Adhesive, yd	12	13
Belladonna, lb	65	70
Galbanum Comp., lb	80	85
Lead, lb	25	30
POPPY HEADS, per 100	1 00	1 10
ROSIN, Common, lb	2½	3
White, lb	3½	4
RESORCIN, white, oz	25	30
ROCHELLE SALT, lb	25	28
ROOT, Aconite, lb	22	25
Althea, cut, lb	30	35
Belladonna, lb	25	30
Blood, lb	15	16
Bitter, lb	27	30
Blackberry, lb	15	18
Burdock, crushed, lb	18	20
Calamus, sliced, white, lb	20	25
Canada Snake, lb	30	35
Cohosh, black, lb	15	20
Colchicum, lb	40	45
Columbo, lb	20	22
Powdered, lb	25	30
Coltsfoot, lb	38	40
Comfrey, crushed, lb	20	25
Curcuma, powdered, lb	13	14
Dandelion, lb	15	18
Elecampane, lb	15	20
Galangal, lb	15	18
Gelsemium, lb	22	25
Gentian or Genitan, lb	9	10
Ground, lb	10	12
Powdered, lb	13	15
Ginger, African, lb	18	20
Po., lb	20	22
Jamaica, blchd., lb	27	30
Po., lb	30	35
Ginseng, lb	3 00	3 25
Golden Seal, lb	75	80
Gold Thread, lb	90	95
Hellebore, white, powd., lb	12	15
Indian Hemp	18	20
Ipecac, lb	1 30	1 50
Powdered, lb	1 60	1 70
Jalap, lb	55	60
Powdered, lb	60	65
Kava Kava, lb	40	90
Licorice, lb	12	15
Powdered, lb	13	15
Mandrake, lb	13	18
Masterwort, lb	16	40
Orris, Florentine, lb	30	35
Powdered, lb	40	45
Pareira Brava, true, lb	40	45
Pink, lb	75	80
Parsley, lb	30	35
Pleurisy, lb	20	25
Poke, lb	15	18
Queen of the Meadow, lb	$ 18	$ 20
Rhatany, lb	20	30
Rhubarb, lb	75	2 50
Sarsaparilla, Hond, lb	40	45
Cut, lb	50	55
Senega, lb	55	65
Squill, lb	13	15
Stillingia, lb	22	25
Powdered, lb	25	27
Unicorn, lb	38	40
Valerian, English, lb. true	20	25
Virginia, Snake, lb	40	45
Yellow Dock, lb	15	18
RUM, Bay, gal	2 25	2 50
Essence, lb	3 00	3 25
SACCHARIN, oz	1 25	1 50
SEED, Anise, Italian, sifted, lb	13	15
Star, lb	35	40
Burdock, lb	30	35
Canary, bag or less, lb	5	6
Caraway, lb	10	13
Cardamom, lb	1 25	1 50
Celery	30	35
Colchicum	50	60
Coriander, lb	10	12
Cumin, lb	15	20
Fennel, lb	15	17
Fenugreek, powdered, lb	7	9
Flax, cleaned, lb	3½	4
Ground, lb	4	5
Hemp, lb	5	6
Mustard, white, lb	11	12
Powdered, lb	15	20
Pumpkin	25	30
Quince, lb	65	70
Rape, lb	8	9
Strophanthus, oz	50	55
Worm, lb	22	25
SEIDLITZ MIXTURE, lb	25	30
SOAP, Castile, Mottled, pure, lb	10	12
White, Conti's, lb	15	16
Powdered, lb	25	35
Green (Sapo Viridis), lb	15	25
SPERMACETI, lb	55	60
TURPENTINE, Chian, oz	75	80
Venice, lb	10	12
WAX, White, lb	50	75
Yellow	40	45
WOOD, Guaiac, rasped	5	6
Quassia chips, lb	10	12
Red Saunders, ground, lb	5	6
Santal, ground, lb	5	6

CHEMICALS.

ACID, Acetic, lb	12	13
Glacial, lb	45	50
Benzoic, English, oz	20	25
German, oz	10	12
Boracic, lb	15	16
Carbolic Crystals, lb	25	30
Calvert's No. 1, lb	2 10	2 15
No. 2, lb	1 35	1 40
Citric, lb	50	55
Gallic, oz	10	12
Hydrobromic, diluted, lb	30	35
Hydrocyanic, diluted, oz. bottles doz	1 50	1 60
Lactic, concentrated, oz	22	25
Muriatic, lb	3	5
Chem, pure, lb	18	20
Nitric, lb	10½	13
Chem. pure, lb	25	30
Oleic, purified, lb	75	80
Oxalic, lb	12	13
Phosphoric, glacial, lb	1 00	1 10
Dilute, lb	13	17
Pyrogallic, oz	35	38
Salicylic, white, lb	1 00	1 10
Sulphuric, carboy, lb	2½	2¾
Bottles, lb	5	6
Chem. pure, lb	18	20
Tannic, lb	90	1 10
Tartaric, powdered, lb	30	32
ACETANILID, lb	90	1 00
ACONITINE, grain	4	5
ALUM, cryst., lb	1¾	3
Powdered, lb	3	4
AMMONIA, Liquor, lb., .880	8½	10
AMMONIUM, Bromide, lb	80	85
Carbonate, lb	14	15
Iodide, oz	35	40
Nitrate, crystals, lb	40	45
Muriate, lb	12	16
Valerianate, oz	$ 55	$ 60
AMYL, Nitrite, oz	16	18
ANTINERVIN, oz	85	00
ANTIKAMNIA	1 25	1 30
ANTIPYRIN, oz	1 00	1 10
ARISTOL, oz	1 85	2 00
ARSENIC, Donovan's sol., lb	25	30
Fowler's sol., lb	13	15
Iodide, oz	50	55
White, lb	6	7
ATROPINE, Sulp. in ⅛ ozs. 80c., oz	5 00	5 00
BISMUTH, Ammonia-citrate, oz	35	40
Iodide, oz	50	55
Salicylate, oz	30	35
Subcarbonate, lb	2 25	2 40
Subnitrate, lb	1 75	1 80
BORAX, lb	7	8
Powdered, lb	8	9
BROMINE, oz	8	13
CADMIUM, Bromide, oz	20	25
Iodide, oz	45	50
CAFFEINE, oz	50	55
Citrate, oz	50	55
CALCIUM, Hypophosphite, lb	1 50	1 60
Iodide, oz	95	1 00
Phosphate, precip., lb	35	38
Sulphide, oz	5	6
CERIUM, Oxalate, oz	10	12
CHINOIDINE, oz	15	18
CHLORAL, Hydrate, lb	1 20	1 25
Croton, oz	75	80
CHLOROFORM, lb	60	1 90
CINCHONINE, sulphate, oz	25	30
CINCHONIDINE, Sulph., oz	15	20
COCAINE, Mur., oz	7 50	8 50
CODEIA, ⅛ oz	80	90
COLLODION, lb	65	70
COPPER, Sulph., (Blue Vitriol) lb	6	7
Iodide, oz	65	70
COPPERAS, lb	1	3
DIURETIN, oz	1 60	1 65
ETHER, Acetic, lb	75	80
Sulphuric, lb	40	50
EXALGINE, oz	1 00	1 10
HYOSCYAMINE, Sulp., crystals, gr.	25	30
IODINE, lb	4 75	5 50
IODOFORM, lb	6 00	7 00
IODOL, oz	1 40	1 50
IRON, by Hydrogen	80	85
Carbonate, Precip., lb	15	16
Sacch., lb	30	35
Chloride, lb	45	55
Sol., lb	13	16
Citrate, U.S.P., lb	90	1 00
And Ammon., lb	70	75
And Quinine, lb	1 50	3 00
Quin. and Stry., oz	18	30
And Strychnine, oz	13	15
Dialyzed, Solution, lb	50	55
Ferrocyonide, lb	55	60
Hypophosphites, oz	25	30
Iodide, oz	40	45
Syrup, lb	40	45
Lactate, oz	5	6
Pernitrate, solution, lb	15	16
Phosphate scales, lb	1 25	1 30
Sulphate, pure, lb	7	9
Exsiccated, lb	8	10
And Potass. Tartrate, lb	80	85
And Ammon Tartrate, lb	80	85
LEAD, Acetate, white, lb	13	15
Carbonate, lb	7	8
Iodide, oz	35	40
Red, lb	7	9
LIME, Chlorinated, bulk, lb	4	5
In pakages, lb	6	7
LITHIUM, Bromide, oz	30	35
Carbonate, oz	30	35
Citrate, oz	25	30
Iodide, oz	50	55
Salic ate, oz	35	40
MAGNESIUM, Calc., lb	55	60
Carbonate, lb	18	20
Citrate, gran., lb	35	40
Sulph. (Epsom salt), lb	1¾	3
MANGANESE, Black Oxide, lb	5	7
MENTHOL, oz	55	66
MERCURY, lb	75	80
Ammon (White Precip.)	1 25	1 30
Chloride, Corrosive, lb	1 00	1 10
Calomel, lb	1 00	1 10
With Chalk, lb	60	65

Books and Magazines.

To be useful, instructive, and worthy of permanent preservation, is a test whereby the value of any publication may be judged. *Current History* has all these qualities in an eminent degree. Between the covers of this magazine the reader will find every three months a wealth of information on all conceivable questions of interest in all parts of the world—solid, condensed, systematic, and yet presented in readable and attractive form, putting within reach of even the ordinary intellect a clear and comprehensive view of the drama of the world's history as it is being enacted. The present number of 256 pages appears in an attractive new cover. It gives special prominence to the Japan-China war (17 pages and map); Currency problem in the United States; Working of the new Tariff law; *Allianca* incident; Cuban revolt; Hawaiian insurrection; Nicaraguan and Venezuelan imbroglios; Silver question in the United States; Work of the 53rd Congress; Brooklyn Trolley strike; Municipal Reform in New York; Manitoba school question in Canada; Newfoundland crisis; Election of a new President in France; Armenian Atrocities; Discovery of Argon; and Anti-toxin treatment of Diphtheria. Hundreds of other topics also are fully treated. As a supplement to any list of reference works, it is of constant usefulness and great value. $1.50 a year; single numbers 40 cents; samples, 10 cents; specimen pages and circulars free. Buffalo, N.Y.: Garretson, Cox & Co., publishers.

In the June number of *Frank Leslie's Popular Monthly* the immortal art work of Richard Wagner is set forth in an admirably illustrated article by Mercia Abbott Keith, entitled "Richard Wagner and His Festspiele in Bayreuth," followed by a critical paper on the same subject by M. A. A. Galloway. Charles Edwardes, the well-known English essayist and descriptive writer, contributes to this number a highly picturesque account of the ancient and storm-worn Scilly Islands. In "Kite Flying Extraordinary," Wilf. P. Pond gives some very interesting information about this fascinating sport, and furnishes many curious examples of the application of the kite to practical and scientific purposes.

The *Delineator* for June contains Summer Fashions, Travelling by Sea and Land, Rose and Violet Culture (Employment Series), Around the Tea-Table, Summer Foods and Dishes, Ohio State University (College Series), Venetian Iron Work (last paper), Kindergarten Papers, Workman as an Artist, Preservation and Renovation, Article on Cleaning Lamp Shades and Oil Paintings, the Newest Books, a Studio Party, Lace-Making, etc., etc.

Piperin is not tasteless, says Theo. Wiegle, as can be demonstrated by tasting a hot solution of it.

Photo-Ceramics: The Fashion for 1895.

We have long recognized, says *The Photogram*, the necessity of some great and general improvement in photography as a profession and a business; and also that amateur photography, if it is to maintain its hold upon and its interest for the public, must be constantly opening fresh fields. On the establishment of *The Photogram*, we determined to put in practice our belief that a trade journal ought to "work as well as preach," and at once undertook such work as we could towards the opening out and popularizing of the most important recent developments of photography.

As the autumn came, we thought we saw an opening for assisting the profession by forcibly bringing to their notice the advantages and possibilities of artificial light photography. This we did by a series of special articles, and by our artificial light exhibition, open during the whole of October, which resulted in the adoption of artificial light by a very large number of photographers all over the country, and many abroad.

For this year we set ourselves a grander task, the reviving and popularizing of that beautiful work, the most exquisite and the least perishable of all the photographic processes, the production of ceramic enamels. We had the matter in hand before even our artificial light show was decided upon, but we worked slowly, because we wished to remove every possible difficulty.

We carefully considered why ceramic work had not been a greater success in the past, and divided the causes into two sections.

(1) It failed to become popular and general with photographers, professional and amateur, because:

(*a*) The process was largely a secret.

(*b*) The instructions published were (in some cases, at any rate) unworkable and misleading, which led some who took up the work to abandon it in disgust.

(*c*) The materials were difficult to obtain, had to be collected from various sources (often difficult to find), and were exorbitant in price, as well as uncertain in quality.

(*d*) The furnace for firing was an expense and a trouble, while "trade" firing was generally undertaken only as a favor and at an exorbitant price.

(2) It failed to become popular with the public because the few who did work the process successfully considered themselves artists rather than commercial workers, and demanded such prices as made ceramics impossible to others than the wealthiest classes.

Two events have just occurred which have caused us to alter our plans, and to call attention to the matter earlier than we intended. The first is that Messrs. Morgan & Kidd inform us that they have just completed a long course of experimental work, and are prepared to undertake ceramic work for the trade, and that their price list will be ready, and they will be prepared to push the matter vigorously, about the beginning of May. The second consideration is that the authorities of the Imperial Institute Photographic Exhibition have decided to make a special feature of ceramic work, and have devoted a very large and prominent space to the loan collection illustrating this work, the arrangement of which they have placed in the hands of H. Snowden Ward and E. J. Wall. We expect that ample arrangements for demonstrations will be made in the exhibition. Such an opportunity for pushing the work is not to be missed, so we have hurried forward all our preparations as far as possible, for we believe that, with the assistance of the professional photographers, photographic societies, and the press, the work can be made as popular and as profitable as were the cartes-de-visite in their early days. We know that the photographic press will support the movement, for our contemporaries have often urged the revival of ceramic enamels as a way out of "Darkest Photography." Of the interest of the "lay" press we are assured, especially of that portion which appeals to the ladies, for the art is so extremely beautiful, and has the distinct advantage of being largely patronized by our Royal Family.

Photographers can assist the movement immensely; in fact, it is mostly upon them that its success will depend, and to them that the profits will accrue. We suggest that every professional photographer who needs an attractive novelty should at once obtain specimens from one or other of the trade houses above mentioned. He can also obtain from us, at a very low price, an attractive little booklet. This will be a "stock" line, but will have the photographer's own name on cover, and will only be supplied to one customer in a town, unless two are willing to use the booklet simultaneously. Specimen and prices can be obtained free for one stamp. We also issue a handsome two-color window show-card, a reduced copy of which, with price, will be found amongst our adverts.

Amateur photographers who wish to take an interest in these beautiful processes will find outline working particulars in early issues, and very full instructions in Ethelbert Henry's book upon the subject, which will be very shortly published. If they take up the work, they can hardly fail to be fascinated with it; and by the publicity that they can give to it amongst their friends, at the societies' meetings, etc., they may do a good turn to the professional photographer.

Bitter almond oil oxidizes, with formation of benzoic acid, unless it be kept in full bottles or have 10 per cent. of alcohol added to it, according to Schimmel & Co.

Household or cloudy ammonia is made by dissolving ammonium oleate in liquid ammonia. The process is patented and the name is copyright.

Iodide, Proto, oz	$ 35	$ 40
Bin., oz	25	30
Oxide, Red, lb	1 15	1 20
Pill (Blue Mass), lb	70	75
MILK SUGAR, powdered, lb	30	35
MORPHINE, Acetate, oz	2 00	2 10
Muriate, oz	2 00	2 10
Sulphate, oz	1 75	1 80
PEPSIN, Saccharated, oz	35	40
PHENACETINE, oz	35	38
PILOCARPINE, Muriate, grain	30	35
PIPERIN, oz	1 00	1 10
PHOSPHORUS, lb	90	1 10
POTASSA, Caustic, white, lb	60	65
POTASSIUM, Acetate, lb	35	40
Bicarbonate, lb	15	17
Bichromate, lb	14	15
Bitrat (Cream Tart.), lb	23	25
Bromide, lb	55	60
Carbonate, lb	12	13
Chlorate, Eng., lb	18	20
Powdered, lb	20	22
Citrate, lb	70	75
Cyanide, lb	40	50
Hypophosphites, oz	10	12
Iodide, lb	4 00	4 10
Nitrate, gran, lb	8	10
Permanganate, lb	40	45
Prussiate, Red, lb	50	55
Yellow, lb	32	35
And Sod. Tartrate, lb	25	30
Sulphuret, lb	25	30
PROPLYLAMINE, oz	35	46
QUININE, Sulph, bulk	30	32
Ozs., oz	36	40
QUINIDINE, Sulphate, ozs., oz	16	20
SALICIN, lb	3 75	4 00
SANTONIN, oz	20	22
SILVER, Nitrate, cryst, oz	90	1 00
Fused, oz	1 00	1 10
SODIUM, Acetate, lb	30	35
Bicarbonate, kgs., lb	2 75	3 00
Bromide, lb	63	65
Carbonate, lb	3	6
Hypophosphite, oz	10	12
Hyposulphite, lb	3	6
Iodide, oz	$ 40	$ 43
Salicylate, lb	1 75	1 80
Sulphate, lb	2	5
Sulphite, lb	8	10
SOMNAL, oz	85	00
SPIRIT NITRE, lb	35	65
STRONTIUM, Nitrate, lb	18	20
STRYCHNINE, crystals, oz	80	85
SULFONAL, oz	34	35
SULPHUR, Flowers of, lb	2½	4
Pure precipitated, lb	13	20
TARTAR EMETIC, lb	50	55
THYMOL (Thymic acid), oz	55	60
VERATRINE, oz	2 00	2 10
ZINC, Acetate, lb	70	75
Carbonate lb	25	30
Chloride, granular, oz	13	15
Iodide, oz	60	65
Oxide, lb	13	60
Sulphate, lb	9	11
Valerianate, oz	25	30
ESSENTIAL OILS.		
OIL, Almond, bitter, oz	75	80
Sweet, lb	50	60
Amber, crude, lb	40	45
Rec't, lb	60	65
Anise, lb	3 00	3 25
Bay, oz	50	60
Bergamot, lb	3 75	4 00
Cade, lb	90	1 00
Cajuput, lb	1 60	1 70
Capsicum, oz	60	65
Caraway, lb	2 75	3 00
Cassia, lb	1 75	1 80
Cedar	55	85
Cinnamon, Ceylon, oz	2 75	3 00
Citronelle, lb	80	85
Clove, lb	1 00	1 10
Copaiba, lb	1 75	2 00
Croton, lb	1 50	1 75
Cubeb, lb	2 50	3 00
Cumin, lb	5 50	6 00
Erigeron, oz	20	25
Eucalyptus, lb	1 50	1 75
Fennel, lb	1 60	1 75
Geranium, oz	$1 75	$1 80
Rose, lb	3 20	3 50
Juniper berries (English), lb	4 50	5 00
Wood, lb	70	75
Lavender, Chiris. Fleur, lb	3 00	3 50
Garden, lb	1 50	1 75
Lemon, lb	1 75	1 80
Lemongrass, lb	1 50	1 60
Mustard, Essential, oz	60	65
Neroli, oz	4 25	4 50
Orange, lb	2 75	3 00
Sweet, lb	2 75	3 00
Origanum, lb	65	70
Patchouli, oz	80	85
Pennyroyal, lb	2 50	2 75
Peppermint, lb	4 25	4 50
Pimento, lb	2 60	2 75
Rhodium, oz	80	85
Rose, oz	7 50	11 00
Rosemary, lb	70	75
Rue, oz	25	30
Sandalwood, lb	5 50	7 50
Sassafras, lb	75	80
Savin, lb	1 60	1 75
Spearmint, lb	3 75	4 00
Spruce, lb	65	70
Tansy, lb	4 25	4 50
Thyme, white, lb	1 80	1 90
Wintergreen, lb	2 75	3 00
Wormseed, lb	3 50	3 75
Wormwood, lb	4 25	4 50
FIXED OILS.		
CASTOR, lb	9	11
COD LIVER, N.F., gal	1 25	1 30
Norwegian, gal	2 25	2 50
COTTONSEED, gal	1 10	1 20
LARD, gal	90	1 00
LINSEED, boiled, gal	60	63
Raw, gal	58	61
NEATSFOOT, gal	1 00	1 10
OLIVE, gal	1 30	1 35
Salad, gal	2 25	2 40
PALM, lb	12	13
SPERM, gal	1 40	1 45
TURPENTINE, gal	60	65

The Standard Brands.
MILLIONS OF EACH BRAND Sold Annually.
'Cable Extra' 'El Padre' 'Mungo' and 'Madre e'Hijo'
S. DAVIS & SONS MONTREAL, P.Q.

"DERBY PLUG," 5 and 10 cts., "THE SMOKERS' IDEAL," "DERBY," "ATHLETE" CIGARETTES, ARE THE BEST.

D. RITCHIE & CO., - - Montreal.

Drug Reports.

Canada.

Business during the last month has been, on the whole, very favorable. The reaction in trade circles has shown itself also in the volume of business done by druggists, and, although in the smaller towns, where trade is dependent in a large measure on the farming community, the "season" is not calculated to be amongst the most enlivening, still the reports received indicate an improvement, and a healthy tone pervades the community. The drug market has shown an upward tendency in many lines, and especially in those in greatest demand. The large consumption of camphor in Japan, consequent upon the outbreak of cholera, has naturally advanced the price of that drug, and, although the price in New York is lower than in Japan, this is due to the keen competition between American and Formosa makers.

Quinine is firmer and slightly advanced.

Opium is dull, morphia lower.

Cod-liver oil has advanced in all markets.

Arsenic is dear and scarce.

Sulphate of copper, firm.

Cocaine, lower.

Cream of tartar advancing.

Citric acid steady and in good demand.

Tartaric acid, firm.

Ergot, increased demand and lower prices.

Carbolic acid advanced.

Bromides have advanced.

Oil peppermint, Hotchkiss and Mitchern, advanced in anticipation of a shortage this year.

Chlorate of potash, higher.

Paris green advanced to 18 and 19 cents in bulk.

England.

London, May 25th, 1895.

Some excitement has been caused in the drug market by the determined action of speculators to force up the prices of camphor, cloves, and shellac. So far, they have certainly succeeded, but not to any very serious extent. Only this week they have turned their attention to turmeric, and have boomed it slightly in consequence. Whether there is any bottom in the movement remains to be seen.

Cod-liver oil, after a relapse, has advanced. Opium is weak, and sellers are anxious to realize. Cocaine is firm, and quinine higher. Balsam copaiba, genuine Maranham, is rather scarce and firmly held. Ipecacuanha and jalap remain unaltered.

Carbolic acid, as indicated in a former advice, is moving upward. Chlorate of potash is dearer. All mercurials have been advanced during the past fortnight.

Salithymol is the trade name for salicylate of thymol.

Anæsthyle is a trivial name for a mixture of ethyl chloride 5 parts, and chloride of methyl 1 part. Used for producing local anæsthesia.

ONTARIO
COLLEGE OF PHARMACY
44 GERRARD ST. E.
TORONTO

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

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Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

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New advertisements or changes to be addressed

Canadian Druggist,
20 Bay St. TORONTO, ONT.

EUROPEAN AGENCIES :
ENGLAND : Aldermary House, 60 Watling Street, London, E. C.
FRANCE: 5 Rue de la Bourse, Paris.

CONTENTS.

Election of Council of Canadian College of Pharmacy.
Impure Drugs.
President's Address.
TRADE NOTES
British Columbia Notes.
Manitoba Notes.
Nova Scotia Notes.
Veterinary Counter Remedies.
The A. Ph. A. Trip from St. Louis to Denver.
British Columbia Pharmaceutical Association.
Montreal College of Pharmacy.
Quebec Pharmaceutical Association.
Filtering Turbid Liquids.
A Druggist's Advice on Advertising.
Agar-Agar in Glycerin Suppositories.
Pharmacy in England.
Pharmaceutical Association.—District No. 10.
CORRESPONDENCE.
Photographic Formulæ Wanted.
Absolute Reliability.
Does Pill Making Pay ?
Best Forms of Quinine.
EDITORIAL.—Supplying Departmental Stores.—Why Such Indifference ?
Answers to Correspondents.
The Art of Pharmacy.
University Examination Questions.
DISPENSING COUNTER.
PHARMACEUTICAL NOTES.
Oleate of Ammonia as a Cleansing Agent.
PHARMACY ABROAD.
The Bicycle for Drug Stores.
FORMULARY.
PHOTOGRAPHIC NOTES.
Veterinary Medicines and the Pharmacist
The Ethical Aspect of the Pharmacy of To-day.
How to Succeed, Though a Druggist.
Lysolum Bohemicum,
Test Your Glycerin.
Calcium Permanganate for Purifying Water.
BOOKS AND MAGAZINES.
Cash and Credit.
DRUG REPORTS.

Election of Council of Ontario College of Pharmacy.

Below we give the result of the elections for members of the Council of the Ontario College of Pharmacy. It will be observed that in nine districts the election was by acclamation, in three only was there any contest, and in one, viz., No. 2 District, there was an informality in the nomination. In No. 9 District the vote between Messrs. Snyder and Perry was a tie, and the president, by virtue of his office, gave the casting vote, allotting the representation to Mr. Snyder. The following will be the members of the council for the ensuing two years in the various districts :

No. 1—Henry Watters, Ottawa, by acclamation.

No. 2—(No nomination).

No. 3—John McKee, Peterboro, by acclamation.

No. 4—C. D. Daniel, Toronto, by acclamation.

No. 5—J. H. McKenzie, Toronto, by acclamation.

No. 6—W. Douglas, Collingwood ; D. H. McLaren, Barrie ; the latter elected.

No. 7.—J. W. Wallace, Brantford ; A. Turner, Orangeville ; the latter elected.

No. 8—George W. Spackman, Hamilton, by acclamation.

No. 9—R. Harbottle, M.D., Burford ; R. H. Perry, Fergus ; S. Snyder, Waterloo ; the latter elected.

No. 10—W. A. Karn, Woodstock, by acclamation.

No. 11—J. F. Roberts, Parkhill, by acclamation.

No. 12—Harry Days, Lucknow, by acclamation.

No. 13—R. D. Scott, Sarnia, by acclamation.

Of the twelve members returned so far, six sat in the last council, and six are new men who have never been on the council board. The member for No. 2 District will be chosen by the council at its first meeting. We regret the disappearance of some of the old members, numbering, as they do, amongst them those who have worked long and faithfully for the college and the druggists whom they represent. It was impossible to persuade any of them to allow their names to be put in nomination, they all feeling, no doubt, that they had done their share both in time and work, and desiring that others should share the responsibility, as well as a portion of the labor, connected with the management of council affairs. While regretting the absence of the old, we welcome the new members, and believe that the council just elected will prove itself a worthy successor to that which has just stepped out.

Impure Drugs.

The tendency to call for lower prices in so many lines has had a most unfortunate effect in respect to the drug trade, and one that is fraught with very serious and great dangers. This tendency is almost entirely due to the keen competition of the present day, and it is serious to find at times how readily even some of those who ought to know much better, and whose experience must surely tell them what a vital, if not costly, mistake they are liable to make by seeking "cheap" rather than *quality*.

The drug business is not one in which it is, under any circumstances, desirable to lose sight of quality, and every legitimate dealer who values his reputation must deprecate with all his heart the introduction of cheap and unreliable qualities of various articles commonly used.

Our attention was recently drawn to one of the most commonly used and cheapest lines of drugs, viz., sulphate of magnesia, which is being offered in second quality, and which the manufacturers do not undertake to guarantee, but are willing to supply by sample. The presence of arsenic and moisture in the commoner qualities is, or should be, well known to every druggist and dealer in these goods, and for the sake of a quarter of a cent a pound, which is the difference between the finest quality of goods and the grades mentioned, it seems most unwise to take the chances that dealers must in selling such articles.

Other articles of equal importance to

the trade are also being offered from time to time at prices below that at which thoroughly reliable ones can be purchased, and, until some catastrophe occurs by the use of these impure goods, probably some dealers will continue to trifle with them.

Reliable brands or makes of every drug about which there is any question as to absolute purity are always obtainable, and it is far wiser and safer to stick to these.

President's Address.

The following is the address delivered by Mr. Jos. Constant, president of the Pharmaceutical Association of the Province of Quebec, at the annual meeting held at Montreal, June 11th :

Gentlemen,—The report just read by our zealous secretary shows in a concise manner the principal events and what has been done by your council during the year ending April 30th.

As you will have noticed, there has been nothing extraordinary, and we have had for the most part only routine business to attend to, therefore my address would not take long to finish, if I only contented myself with an analysis of the report, but, before leaving the presidential chair, and before ceasing to form part of your council, I wish to make a few observations of general interest. First, I wish to speak about

THE PRELIMINARY EXAMINATIONS.

I have often heard candidates, who have presented themselves at the preliminary examinations, and sometimes the parents of these candidates, reproach us with the severity of the examinations. But, although I sympathize with those who have not been successful in passing the first ordeal, I must say that our examinations are not as severe as they ought to be.

We assume, on entering the study of pharmacy, a great responsibility towards the public, and we should, in consequence, demand from our students as complete an education as that demanded by the other professions ; and not only should we exact a high standard from aspirants to the study of pharmacy, but we should also continue to give them as complete a course of chemistry, materia medica, and botany as possible. In this way only will the pharmacist obtain the high standing which he should hold in society ; he will have the confidence and respect of his fellow-citizens, and will be on an equality with the members of the other professions. Then the physicians with whom we come most directly in contact, knowing that we have received the education which will enable us to properly fulfil the duties of our position, will not fear to entrust the pharmacists with their prescriptions, and will have for us the same respect, and look upon us with the same regard, as they have for one of their own confrères. This will lead also (a matter of the greatest importance) to more intimate relations between

THE PHYSICIAN AND THE PHARMACIST.

It will become necessary, I believe, that the members of these two professions should, from time to time, meet together and discuss matters of common interest. Medicine and pharmacy are interdependent, and we should strive to make them advance together. But we frequently have to complain of each other ; thus the physician pretends that the pharmacist sometimes trespasses upon his domain, by giving advice to customers. On the other hand, the pharmacist does not think that the physician should also assume the functions of the two professions, and deprive him of the benefits for which he has already sacrificed so much. Is this charge of counter prescribing made by the physician a just one ? I say it is not, at least, as a general rule. There are, no doubt, some druggists who give consultations, but I believe that the number and importance are exaggerated, and, anyhow, I am convinced that the practice is almost entirely confined to pharmacies directed by physicians. We are sometimes obliged to give advice, but we do not try to supplant the physician nor have we any pretensions to do so. We want each to remain within his proper sphere, and, although I am not quite prepared to ask for a law similar to that which exists in some of the neighboring States, by which physicians wishing to open drug stores are compelled to pass an examination before a board of pharmacy, I am of the opinion that a line of demarcation should be drawn and accord to each what is rightly his due.

I will now draw your attention to

PATENT MEDICINES.

Patent medicines are a curse to the physician, the pharmacist, and the public. They are an unjust and direct opposition to the physician by preventing the sick from obtaining proper advice ; they deprive the pharmacist of the sale of his own preparations, and force him to keep in stock a large number of preparations which have only a limited sale ; and they are injurious to the public, which, allowing itself to be cajoled by the certificates of cure, which are the complement of the advertisements, purchases the famous remedy, which often does more injury than good.

We should have in this country, as in most European countries, a commission composed of physicians and pharmacists. All demands for patents or copyrights for medicinal preparations should be submitted to this committee, with the formula, and after examination a report should be made to the government recommending or rejecting the demand. This would diminish the number of patent medicines, and the public would know that those the sale of which was allowed would be of a superior quality and incontestable value.

With your permission I would like to say a word about

THE SALE OF POISONS.

I know that, as a general rule, you do not sell any narcotics without taking all the necessary precautions. Although you may know the person who asks you for a poison, you obtain all the necessary information, and you make him well understand the danger of using powerful drugs. However, in spite of all these precautions, accidents will happen, and it was only a short time ago that the coroner, in addressing the jury in a case of poisoning by morphine, criticized the Pharmacy Act. He stated that the law regulating the sale of poisons was not strict enough. I am of the same opinion, but I wish to state that the law is as the government wished to have it, because we asked for greater restrictions. I am convinced that I express your desire in saying that we are ready to accept amendments to this part of the Act, provided other branches of commerce which sell poisons are subject to the same rule. The law should not be more strict for the druggist than for other merchants ; on the contrary, he should be favored, as he knows the nature of the substance which he is called upon to sell.

I would have wished to say something about

SUBSTITUTION.

But, as I know that no pharmacist worthy of the name is guilty of this fault, by which he would lose his good reputation, and by which public confidence, which he has till now enjoyed, would be destroyed, I will not say anything about it.

THE CANADIAN PHARMACEUTICAL ASSOCIATION.

The only remaining point to which I wish to draw your attention is the Canadian Pharmaceutical Association. Two years ago, at the annual meeting, I expressed the hope that we would shortly see the formation of a society of Canadian pharmacists, similar to that which exists in the United States. To-day I have the pleasure of announcing that the projected association is well under way, and that before long we will have a powerful society which will render great services to Canadian pharmacy.

Gentlemen, before finishing I must thank you for the confidence which you have placed in me since my first election as a member of your council, nine or ten years ago. You have, during that time, always re-elected me by a large vote, testifying your great appreciation of the feeble services which I have been able to render. During the last six years your council has done me the honor of making me for five years your president, and, if I have not accomplished all that this responsible position demanded, I have the conviction that I have done my best to promote the interests of the association. Before retiring from the presidency, and, as I have before said, from the council, I desire to sincerely thank my colleagues for the great aid which they have given me ; each of them has assisted regularly at all meetings and has shown himself most devoted to the interests of the association, and I hope that my successor will have a council as zealous to aid him in working for our interests.

A. V. Scott. D. MacMillan.

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Thrifty farmers, stockowners and carters all over the country are, by actual results, realizing that they cannot afford to be without a supply of

Dick's Blood Purifier. Price 50c.
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ONLY **10 CENTS** A PACKAGE

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Headache AND Neuralgia Cure

Every package guaranteed and will positively cure
Sick Headache in 5 minutes
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Trade Notes.

John A. Beatty, druggist, Fredericton, N.B., is dead.

J. W. Sutherland, Hamilton, Ont., has sold his drug business.

Alex. McKinnon has opened a drug store in Kincardine, Ont.

White's drug store, Elmvale, Ont., was destroyed by fire July 8th.

M. M. Williams, druggist, New Denver, B.C., has closed his business.

J. F. McDonald, druggist, Hopewell, N.S., has made an assignment.

Belanger & Co., druggists, Ottawa, Ont., have dissolved partnership.

R. J. W. Atwood & Co., druggists, Victoria, B.C., have gone out of business.

Captain Holden, of Three Forks, B.C., will shortly open a drug store at New Denver, B.C.

Mr. H. Robertson, formerly with Tapscott & Co., is opening a new drug store in Brantford, Ont.

J. E. Spankle, druggist, Kingston, Ont., has made an assignment, and the stock is advertised for sale.

William Henry Schieffelin, of the drug firm of W. H. Scheiffelin & Co., New York, died June 21st.

David Jackson, a drug clerk in the employ of Archdale Wilson & Co., Hamilton, Ont., committed suicide by poison on July 1st.

The drug store of W. H. Sanford, Tottenham, Ont., was destroyed by fire on June 18th. Loss, $2,000. Insurance, $1,000.

The McDowell, Atkins, Watson Company, Limited, wholesale druggists, of Vancouver, B.C., have filed letters of incorporation.

J. McKinney, jr., has admitted Mrs. D. C. Davis into partnership in his drug business at St. John, N.B. The firm name is McKinney & Co.

William Mather, well known as the manufacturer of "Mather's Plasters," originated by his father, many years ago. died at his residence, Timporley, England, last month.

J. B. Rouse, who formerly represented the Alpha Rubber Co. of Montreal, on the road, and who has recently been with the Davis Lawrence Co., is again with the first-named firm, as their representative.

S. C. Lamb, of Athens, Ont., who graduated with honors at the last examination of the Ontario College of Pharmacy, has now his diploma from the Optical Institute, having passed a satisfactory examination.

The new glassware articles of Messrs. Adams & Sons Co. are very handsome packages and good sellers. A beautiful hanger sign is sent to all who apply for it. It is well worth sending for as it makes a very nice decoration in the store window.

The semi-annual meeting of the council of the Ontario College of Pharmacy for granting certificates of competency in accordance with section eight of the Act respecting pharmacy, and for general business, will be held in the college building, Toronto, on Tuesday, the 6th day of August, 1895, at 2 p.m.

In our last issue it was stated that the business of the Vancouver Drug Co. was "advertised for sale by the sheriff." We are informed that this was an error, and that the claim which was made against the company was not for any debts contracted by them. We gladly make this correction, and hope that the first report furnished us will not in any way inconvenience the firm.

George H. Leslie, who for a number of years had a drug business in Toronto, and afterwards in Windsor, Ont., and who subsequently moved to Omaha, Nebraska, where he had one of the most successful businesses in that city, has disposed of his business there, and has returned to Toronto. He is now warehouse manager for Lyman Brothers & Co. The many friends of Mr. Leslie cordially welcome him back to his native land.

The Ontario Chemists' Manufacturing Company has purchased a large warehouse at number 19 Hughson street, Hamilton, Ont., and will occupy it in a few weeks. The success which has attended the sale of their preparations has necessitated the removal to larger premises. The directors of the company are P. C. Blaicher, president; J. A. Clark, secretary-treasurer; and J. Hargreaves, Toronto; A. B. Petrie, Guelph; W. T. Strong, London; J. W. Gerrie and James Harrison, Hamilton.

Mr. Frank Lawson, of the firm of Lawson & Jones, label printers, of London, Ont., has recently returned from a business trip to Manitoba, the Northwest, and British Columbia. Mr. Lawson reports a successful trip in his firm's lines, but corroborates other reports to the effect that the drug trade is badly overcrowded in the West. It seems that the growth of population is, to too great an extent, among business men, without a prospect of sufficient increase among agriculturists and artisans to add proportionately to the consuming market.

British Columbia Notes.

The annual meeting of the British Columbia Pharmaceutical Association was held in Vancouver on Thursday, June 13th. Nothing of much importance transpired at the meeting, save a resolution passed to join with the Ontario Chemists' Manufacturing Company, which will have for its object "the purchasing, manufacturing, and selling drugs, medicines, household and toilet articles, and conducting a general trade in all goods bought or sold in the business of chemists and druggists." As this association will sell only to members who must be qualified druggists, and as the formulæ of the household and toilet articles are open for inspection by, and the result of careful thought of, the members, it is readily understood that in these days of grocers retailing medicines to the detriment of the drug business such a move is an excellent one in the right direction.

Mr. J. A. Cohen, a well-known and respected merchant of Victoria, died under painful circumstances on June 18th. He complained of feeling unwell, and went to Shotbolt's drug store on June 15th for laudanum, stating that he had cramps in the stomach. The clerk in charge, Mr. Chadwick, was impressed by the strange look of his customer, and wisely decided not to give him the drug. Mr. Cohen went angrily away, and, meeting the proprietor outside, repeated his request. Mr. Shotbolt also refused him, but recommended chlorodyne, which Mr. Cohen was unwilling to take. He went away and obtained some elsewhere, which he took. His wife noticed his profound sleep on Sunday morning, and grew alarmed, called medical aid, and the man died as intimated. Medical opinion at the inquest gave the cause of death as congestion of the brain, the death being accelerated by the laudanum taken. That discretion is necessary in retailing poisons is evinced unmistakably by the above experience.

Apropos the above inquest the coroner expressed surprise that no restriction is placed upon the *quantity* of poison sold to one individual, and recommended the jury to add a rider dealing with the matter. The "intelligent" jury refrained, and wisely, too, as every druggist knows it would be foolishness to specify by law how much of a certain poison can be sold. Comment is unnecessary. The fact is mentioned merely to show what some doctors' ideas are *re* the poison law.

The Victoria press thinks druggists should be *compelled* by law to put all poisons into blue poison bottles, because carbolic acid was administered in the dark in mistake for medicine to a child last week, happily without fatal result.

Manitoba Notes.

Another valuable addition to the Winnipeg jobbing trade has been made in the opening of a wholesale drug and commission house by Messrs. Harrison & McGlashan. The new firm have leased premises in the McIntyre block, where they will carry on a wholesale drug and commission business, representing the firm of Parke, Davis & Co., manufacturing druggists, Detroit, and the well-known firm of S. B. Chandler & Son, manufacturers of surgical instruments, Toronto. The members of the new firm are well and favorably known throughout the Northwest. Mr. William Harrison, son of Dr. D. H. Harrison, banker, Neepawa, has conducted for a number of years a successful retail drug business in Neepawa. Mr. C. C. McGlashan was formerly in the com-

mission business in Toronto, but for the last few years has represented in Western Canada the well-known manufacturers, Messrs. Parke, Davis & Co.

Mr. B. M. Canniff, of Portage la Prairie, and Mr. J. K. Patton, of Minnedosa, were in Winnipeg recently, attending the annual communication of the Masonic Grand Lodge.

Mr. J. R. Wynne, of the Martin, Bole, & Wynne Co., having been elected a member of the Canadian Rifle Team, left for Bisley on the 25th ult. This is the third time Mr. Wynne has visited England with a Canadian rifle team. He expects to visit cities in France and Germany before returning about September 1st.

Mr. S. L. Taylor, druggist, Minnedosa, has just returned from a visit to Eastern cities.

Mr. R. H. Gilhuly, the pioneer druggist of West Selkirk, made a visit to Winnipeg last week.

Dr. Carscallen, of the Morris drug store, Morris, Man., has taken up his residence in Winnipeg, where he will engage in the practice of his profession with Dr. McDearmid. The Morris drug store will continue as formerly.

Mr. John Giles, who has for some time been clerking for Mr. W. J. Mitchell, has taken up his residence in Portage la Prairie, having attained a lucrative position with Mr. Joseph Taylor, druggist at that place.

Mr. C. S. Touchburne, a graduate in pharmacy at the recent examinations, left Winnipeg last week for his home in Alexander, Man.

Nova Scotia Notes.

The annual meeting of the Nova Scotia Pharmaceutical Society was held in Halifax June 13th, and the report showed the society to be in a flourishing condition financially, as well as in proper working order. Infringements of the Act during the year have not been many, and those dealt with have been prosecuted vigorously and successfully. The meeting commended the action of the Legal Committee, and instructed vigorous prosecution of any infringement of the Pharmacy Act. The following executive were elected for the ensuing year: President, Frank C. Simson; vice-president, W. F. O'Dell; treasurer, L. J. Mylius; secretary, Albert H. Buckley; registrar, W. H. Hamilton; council, F. C. Simson, W. H. Hamilton, L. J. Mylius, J. H. Angwin, W. F. O'Dell, Albert H. Buckley, Walter Irwin, C. E. Huggins, W. A. Dymond, Avery F. Buckley, J. B. Hattie, and J. R. Rawley.

The country members were not well represented at the meeting of the Nova Scotia Pharmaceutical Society. Next year the executive propose taking such action as will make it sufficiently interesting to secure a large attendance.

The examinations of the Nova Scotia Pharmaceutical Society were held on June 11th and 12th. The following were the successful candidates in the preliminary and final departments respectively: *Preliminary*—J. J. Turnbull, J. F. Elliott, M. Manson, Chas. Hutchins, E. J. Butcher. *Final*—John G. Clark, Truro; Lewis Thomas, Halifax; E. J. Phelan, Halifax; R. M. Jackson, New Glasgow; J. S. Coombs, Halifax.

The meeting of the Maritime Medical Association was held at Halifax on July 2nd. There was a good attendance, and the papers read were of more than usual importance. The visiting members were entertained by their Halifax friends at an excursion on the harbor, on s.s. *Bridgewater*, and dinner at Lawlor's Island.

The veteran druggist, Mr. H. A. Taylor, has gone to Woodstock, N.B., to spend a few weeks.

Mr. A. S. Hutchins, of Liverpool, was in Halifax last month attending the Sousa band concert. Mr. Hutchins seems to be thriving in every way.

Mr. B. H. Porter, of Bridgewater, who was unwell and confined to the house the greater part of the winter, is again about in his usual health.

Dr. G. A. Pickels, of Mahone Bay, made a flying visit to Halifax lately, in connection with one of his many outside interests, and, we understand, returned home well satisfied.

Mr. J. G. Smith, of Halifax, has made arrangements to continue his drug business at the old stand. Mr. Smith has many sympathizers in his late business troubles.

Mr. E. B. Sutcliffe has about completed his new Metropole building. This is on the old stand formerly occupied by him as a wholesale drug establishment, and will be now laid out in offices, fitted with all modern improvements and conveniences. The Metropole building is an ornament to the city.

Mr. W. H. Simson writes from Cole Harbor: "I got nineteen fish in a few hours. The two smallest weighed half a pound each, and the others averaged two pounds, the largest weighing about three pounds. When you come, bring plenty of gear, double castings and lines, and hooks and flies of large size."

Veterinary Counter Remedies.

The *Chemist and Druggist* reprints the following formulæ from "A Manual of Veterinary Therapeutics and Pharmacology":

Cough-powders.

Useful in the simple coughs of horses depending on catarrh:

Pulv. camphoræ	3 drams.
Potass. chlorat	1½ oz.
Pulv. fol. belladon	1½ "
Pulv. anisi	2 "

Div. in pulv. vj.
Give one twice a day in the food.

For chronic cough in the horse the following are good:

Pulv. fol. aconiti	6 drams.
Pulv. digitalis	4 "
Arsenic. alb	gr. iv.
Pulv. anisi	½ oz.

Div. in pulv. vj.
Give one every night in the food.

Cough-mixture for Dogs.

Tr. belladonnæ	½ oz.
Syr. scillæ	½ "
Tr. camph. co	1 "
Aq. ad	6 "

M.
Give two teaspoonfuls three times a day.

Colic-draughts for Horses.
For Simple Colic.

Chlorodyni	2 oz.
Spt. æther. nit	2 "
Ol. lini	Oj.

M.
Give at one dose, and repeat in two hours, if necessary.

For Flatulent Colic.

Creolin	½ oz.
Ol. terebinth	2 "
Spt. ammon. arom	2 "
Tr. asafœtidæ	2 drams.
Ol. lini	O1½

M.
For one dose.

Draught for Hoven in Cattle.

Creolin	1 oz.
Ol. terebinth	4 "
Spt. ammon. arom	4 "
Ol. lini	O1½

M.
For one dose.

Influenza in Horses.

Chlorodyni	1 oz.
Spt. æther. nit	2 "
Liq. ammon. acet	2 "
Aq. ad	15 "

M.
This dose is to be given every three hours during the first stage, when much shivering is evident.

Throat Liniment.

Ol. terebinth	1 oz.
Liq. ammon. fort	1 "
Ol. olivæ	1 "

M.

Stimulating White Liniment.

Ol. terebinth	16 oz.
Camphoræ	1 "
Saponis mollis	2 "
Aq. destil	2 "

Mix the soap with the water; dissolve the camphor in the turpentine; mix the two, and bring down to the desired consistency with water.

Ointment for Grease and Cracked Heels.

Sulphur. subl	1 oz.
Plumbi acetat	½ "
Creolin	½ "
Ol. eucalypti	½ "
Vaselini	4 "
Lanolini	4 "

M. Ft. ung.
Apply twice daily.

Fly-blister.

Pulv. cantharidis	20 oz.
Ol. terebinth	12 "
Acid. acet. fort	9 "
Lanolini	2½ lb.
Vaselini	2½ lb.

Mix the first three, and allow to stand for twenty-four hours; then add the lanoline and vaseline, melted on a water-bath, and mix well, stirring until cold.

WILSON'S ROOT BEER

Each Ten-Cent Bottle makes five gallons of a most delicious and healthful Temperance Beverage.

SELLS FAST and DRAWS TRADE.

Send us an order for a gross NOW and get the cream of the demand.

Plenty of Advertising Matter with each Order.

ARCHDALE WILSON & CO.,

WHOLESALE DRUGGISTS,

HAMILTON, ONTARIO.

Price List of Pharmaceutical Products

WE have just issued a new Pharmaceutical Price List (Catalogue No. 95), a copy of which we would be pleased to mail to all established retail druggists who may write for it. We believe it to be most comprehensive in its scope, as it includes within its pages the prices on fully 4,000 pharmaceutical products, which are conveniently arranged in groups. The notes of reference given in the appendix should be of interest and assistance to the careful buyer. In order to comply with the request of the wholesale drug trade that all lists conform to a general standard as far as could be done consistently, we have adopted in Catalogue No. 95 a system of long prices with discounts, which are liberal. Our terms of three months' credit, no charge for containers, cartage, and boxing, are certainly worthy of consideration.

Frederick Stearns & Co.

Manufacturing Pharmacists. WINDSOR, ONT.

The Harry Lewis DOG SOAP

Made from the Original Receipt

TRADE MARK.

Beautifully got up, and a Good Seller

Whale Oil Soap

In 1lb. boxes, 1 doz. in Case ;
In 20 lbs. Pails and Barrels

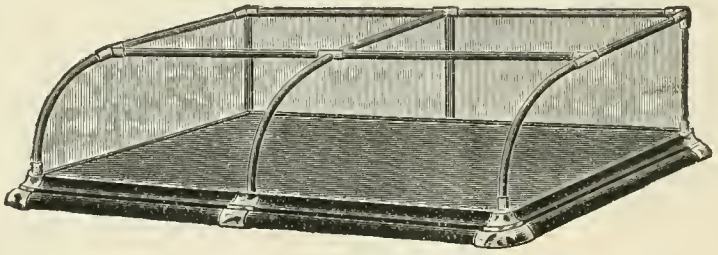
For killing insects on Rose Bushes, Plants, etc.

THE ALBERT TOILET SOAP CO.,
Makers and Sellers. *MONTREAL.*

LONDON SHOW CASE WORKS

Manufacturers of

SHOW CASES



Of all kinds for

COUNTERS, WALLS, OR DISPENSARIES.

SHOP FIXTURES ◆ COUNTERS ◆ TABLES ◆ SHELVING ◆ MIRRORS, Etc.

Send for Catalogue and Price List

94 Carling Street, LONDON, ONT.

GERMAN ARMY PILE REMEDY

Each One Dollar Package Contains

Liquid, Ointment, and Pills.

GOOD SELLER.
GOOD MARGINS.
WELL ADVERTISED.

THE ONLY CURE FOR PILES

Write us to mention in your daily or weekly papers that *GERMAN ARMY PILE REMEDY* may be procured from you.

The KESSLER DRUG CO.
Canadian Agency *Toronto.*

PATENTS

Promptly secured. Trade-Marks, Copyrights and Labels registered. Twenty-five years experience. We report whether patent can be secured or not, free of charge. Our fee not due until patent is allowed. **32 page Book Free.**
H. B. WILLSON & CO., Attorneys at Law, Opp. U. S. Pat. Office. **WASHINGTON, D.C.**

The Detroit Pennyroyal Wafers

THE ONLY GENUINE.

Have been so successful with Women in the treatment of

PAINFUL AND IRREGULAR MENSTRUATION

That Physicians prescribe them liberally.

The Druggist can safely recommend them for their value to the sick.

At **$8.00 per dozen** delivered, you get a good **profit of 50 per cent.** No need to try to work off an imitation of them.

If you want local advertising, or terms, or special remedies, write to the manufacturers.

EUREKA CHEMICAL CO.,
Canadian Laboratory WINDSOR, ONT. DETROIT, MICH.

Rapid Sellers

LUXTEN'S INSECT POWDER.

LONDON DRUG CO'S

Sticky Fly Paper

Lime Juice
(½ Pts., Pts. and Qts.)

Moth Balls
in 10 cent Boxes.

Storey's Head Ache Powders
(10 cent Packages.)

Gem Rings

Mixed Spices

Stafford's White Paste
(Cleaner and Stronger than Mucilage.)

The London Drug Co.
LONDON, Ont.

The A. Ph. A. Trip From St. Louis to Denver.

The Missouri Pacific and Union Pacific Railways have been selected as the route for the American Pharmaceutical Association party from St. Louis to Denver for the annual meeting of the association. The party will leave St. Louis Union Station in special cars (or special train, if the number of applicants is sufficient) at 9 a.m., Monday, August 12th, and arrive at Kansas City at 6 p.m., where they will join parties from Chicago in a special train, leaving Kansas City *via* the Union Pacific Railway at 10.30 p.m, arriving in Denver at 5 p.m. Tuesday. The rate for the round trip, St. Louis to Denver and return, is $24.50. In order to make adequate arrangements for sleeper accommodations and other comforts, all desiring to join the St. Louis party are requested to communicate with the undersigned at an early date.

Dr. H. M. Whelpley, 425 Clark avenue, St. Louis, Missouri, Member of the Pharmaceutical Association Committee on Transportation.

British Columbia Pharmaceutical Association.

ANNUAL MEETING AND BANQUET.

The Provincial Pharmaceutical Association met in Vancouver on June 13th. A meeting of the association council was held in the morning. In the afternoon the visitors were driven round Stanley Park and shown other points of interest in the city. In honor of the occasion, all the drug stores in the city closed at eight o'clock in the evening. In the evening the annual meeting of the association was held at the Manor House. The proposition to form a Dominion association was favorably considered. It was decided to join in, if such an association were formed. It was resolved to hold the next meeting of the council in Victoria, and the next annual meeting of the association in New Westminster. Officers were elected as follows: President, T. M. Henderson, Victoria; vice-president, T. E. Atkins, Vancouver; registrar, Charles Nelson, Vancouver; councillors, Messrs. Henderson and Shotbolt, Victoria; Atkins and Seymour, Vancouver; Van Houten, Nanaimo; and Muir, New Westminster.

After the business session was over an adjournment was made to the dining room, where there was set before them an appetizing menu that was a credit to Host Emerson and his capable chef. After the dinner had been disposed of the gathering was called to order by the vice-president, T. E. Atkins, who first proposed a toast to the Queen, which was duly honored.

The next toast was the Pharmaceutical Association. He referred briefly to the mutual benefit to be derived from the formation of such an association. He hoped it would continue to increase in usefulness from year to year.

The Retiring Councillors were next honored. H. McDowell in reply said that as a councillor he had tried to do his best in the interests of the profession. It was in 1889 that the first steps were taken towards the formation of this association. That year the Act asked for was defeated in the Legislature by one vote. The second year they could get no one to bring their bill forward, but on the third attempt they were successful. He considered this a proof of increase of wisdom in the Legislature. He was retiring from the council on account of pressure of business, but he would always stand ready to do anything in his power to advance the interests of the association. J. Cochrane, of Victoria, in reply to the same toast, said while he was retiring from active connection with the executive of the association, he would try to do his duty to the association all the same. The association was a professional and educational union. He thought that they should have a commercial union as well. If not they might soon find a state of things similar to what it is in many places in the East, where other houses are handling goods formerly carried exclusively by druggists. He instanced where the union of the druggists had prevented what would have been a disastrous rate war in London, Ont.

Charles Nelson sang "Hearts of Oak."

In reply to the toast, Sister Associations, John Reed said that that term covered a wide ground. He believed them to be accountable for a great deal of the success that had been met with. It was wise to foster a community of interest. Locally and individually every man was trying to get what he could, but he was pleased that they had not in this community leaned to the weak side by pandering for popularity with cheapness regardless of all else. It was a fact that they had a limited field and a superabundant amount of material to work it with. He then jocosely remarked that if about ten of the druggists of the city were to step out, the balance could take good care of the trade. He hoped, however, that time would deal kindly, if not successfully, with them all. They had a field full of promise, but of slow though steady growth. He hoped they would continue to follow good lines, and he trusted that they would all be successful. Replying to the same toast, ex-Mayor D. S. Curtis, of New Westminster, said that he was glad they did not have to compete with the cutting and slashing that prevailed in some parts of the East. He had to congratulate them in Vancouver and Victoria on maintaining prices. Of course, they were much lower in New Westminster. (Laughter.) He was not talking for advertisement, because all present were sellers, not buyers. To be honest with the public, he concluded, was the *sine qua non* of all such associations.

Absent Members were spoken for by H. H. Watson and J. F. Jaeck, and the three youngest members, Messrs. Griffith, McPherson, and Strong, for themselves.

The Press was replied to by S. R. Robb, of the *World*, and A. G. Philip, of the *News-Advertiser*.

The Ladies were championed by Messrs. Muir and Jones.

The entertainment committee were given a bumper, and J. R. Seymour and Charles Nelson responded.

J. A. Teportin, of Langley & Co., and H. McDowell, of the McDowell, Atkins, Watson Co., Ltd., replied to the toast of the Wholesale Trade.

The Host was then toasted and complimented, and in reply he assured them that it was a pleasure to have had their company, and a hearty welcome awaited them whenever they came back.

Montreal College of Pharmacy.

The time for receiving applications for a French professor of Materia Medica for the Montreal College of Pharmacy closed June 11th. Dr. Desrosiers, of Laval, has attended to the duties so far. There are half a dozen applications, and the position will be filled at the first meeting of the board. The lectures begin in October next. The general feeling among the members of both the College Board and the Pharmaceutical Association is that the professor should be a pharmacist rather than a doctor, so as to have the lectures as practical as possible.

Quebec Pharmaceutical Association.

The annual meeting of the Pharmaceutical Association of the Province of Quebec was held in the Montreal College of Pharmacy, on Tuesday, June 12th, about thirty members being present, Quebec and Three Rivers being represented at the meeting. Mr. Joseph Constant, president, occupied the chair, and opened the meeting by calling upon Mr. E. Muir, secretary-registrar, to read the minutes of the last annual meeting, and also the annual report, after which Mr. Alex. Manson, treasurer, read his annual financial statement, all of which were approved and adopted. The report and financial statement shows the association to be in a prosperous condition, the cash account showing to its credit, on April 30th, a balance of the handsome sum of $2,884.77. The president then delivered his annual address in French, and, from the manner in which it was received, it was evident that Mr. Constant had won for himself the highest esteem of his confrères for the able manner in which he had served the association as its president for some four or five years. The president then nominated Messrs. W. T. Kerry and H. F. Jackson scrutineers, and these gentlemen proceeded to count the ballots for six new members of council, during which quite lively discussions took place upon a number of subjects of interest to the pharmaceutical profession; amongst others, that of the sale of poison, the new council being requested to take into its consideration the advisability of extending the

poison schedule. Votes of thanks were tendered to the president, the retiring council, and the press, after which the scrutineers reported the following gentlemen to have received the highest number of votes, and, therefore, duly elected as members of the new council, namely: R. W. Williams, Three Rivers; J. Emile Roy, Quebec; Alex. Manson, C. J. Covernton, A. D. Mann, and C. E. Scarff, Montreal; these, with Messrs. Jos. Constant, Henry R. Gray, David Watson, S. Lachance, W. H. Chapman, and W. A. Dyer, will compose the council of the association for the year 1895-1896. A vote of thanks having been tendered to the scrutineers, the meeting closed.

COUNCIL MEETING.

The first meeting of the new council of the Pharmaceutical Association of the Province of Quebec was held on Tuesday, July 2nd, at the College of Pharmacy, Montreal, when the following officers were elected for the current year, namely:

President, R. W. Williams, Three Rivers; first vice-president, W. H. Chapman, Montreal; second vice-president, S. Lachance, Montreal; treasurer, Alex. Manson, Montreal; board of examiners for the major and minor examinations, S. Lachance, W. H. Chapman, J. R. Parkin, Montreal, R. W. Williams, Three Rivers, A. E. DuBerger, Waterloo. Preliminary board of examiners, Prof. A. Leblond de Brumath, and Prof. Isaac Gammell, with J. Emile Roy, Quebec, supervisor of examinations for the city and district of Quebec. Auditors, L. A. Bernard and R. H. Bryson, Montreal.

E. Muir, secretary-registrar, was delegated to represent the association at the coming meeting of the American Pharmaceutical Association, which meets in Denver, Colorado, on the 14th of August next.

A resolution was adopted, endorsing the recommendation of the annual meeting, that this association invite the American Pharmaceutical Association to hold its annual meeting of 1896 in the city of Montreal.

The council then adjourned to meet on the first Tuesday in September.

Filtering Turbid Liquids.

Rolff, in the *Pharmaceutische Post*, recommends that turbid liquids, which cannot be cleared by the ordinary processes of filtration, the use of gelatin, talc, albumin, etc., be filtered through the residue of tinctures, as, for instance, tinctura cinchonæ composita, or tinctura amara. The idea, while not novel, is in many instances, as in the filtration of liqueurs of similar aroma, quite practical. The *Pharmaceutische Centralhalle*, in commenting on it, suggests the use of pure cellulose in tablets, previously exhausted, of course, with alcohol.

A Druggist's Advice on Advertising.

Why advertising among retail druggists is not more general has been a puzzling question to many people. Perhaps no business offers better opportunities for advertising than that of the retail druggist. The writer has spent almost all his business life as clerk and manager in drug stores, and his experience has convinced him that advertising wisely and judiciously will increase the business of any store. Naturally, it must be done a little differently from the way it can be done in almost any business. You have the dignity of your profession to look after, and a too commercial aspect to the advertising of a drug store will hamper its success to some extent. While it is not advisable to constantly advertise bargains, there is no objection to impressing on the minds of people that no one can sell drugs of absolute purity cheaper than you can. There's your chance—purity. That little word contains the germ of more good drug advertising ideas than any other. The public is ignorant of medicine; it has an idea that medicine is a great mystery, solved only by the few, and looks eagerly for instruction. This makes it easy for a convincing ad writer to make people believe they are taking a risk if they take anybody else's drugs than his. Not that I believe it is necessary or wise to humbug people; I mean a skilful ad writer can so impress the people with the fact that his drugs are pure, that their minds will instantly revert to his store when pure drugs are in question, and they will feel a disinclination to patronize other drug stores.

Impressing this fact of the purity of your drugs on the public's mind is best done by short and terse newspaper talks. Suppose you take rochelle salts as subject for one day. You could give a short account of its origin, its preparation, and its uses. Then might follow a short description of how it is possible to adulterate it, and the danger of taking any but the purest—such as yours. Of course this is given simply as an example, as rochelle salts might ordinarily be considered too small a thing to advertise. The idea, of course, is to make people understand that each and every drug sold at your store is better than can be found elsewhere.

Another way of impressing the public that your store is worthy of patronage, is to advertise the fact that you do not "substitute." Substituting other drugs for those called for in prescriptions is a crying evil in the drug trade, which has been greatly agitated. If you succeed in convincing people that you do no substitution, you have opened the door to their confidence and trade.

A word as to dead stock—which is bound to accumulate in every drug store. Among such stock the principal articles are patent medicines, the manufacturers of which have stopped advertising in your locality. Now, what objection is there to your advertising these things yourself? Look at the labels, get an idea of what the remedies are good for, and with your knowledge of advertising, gleaned from *Printers' Ink*, advertise them. The manufacturers' previous advertising will pave the way for yours.

In these days of acute competition, every druggist must advertise more or less, and to get the full advantage from it he must do it properly. How many of us know that space in the local paper, where, month after month, appears the old story about "Peter Pills, Druggist and Chemist. Full Line of Patent Medicines and Toilet Articles"? It makes no impression because there is nothing in it to impress the mind. The public does not want a bare fact; it wants details, prices, information. In these days we take our pills sugar-coated; we want facts in the same way. But the druggist may be a bright business man, and yet be entirely incapable of writing an ad. What is the remedy? Let us see. When a druggist wants to make a specialty of perfumery, for instance, what does he do? He buys the books on perfumery, and reads what other men who have made it a specialty say about it, and profits thereby. And that is exactly the thing he must do in regard to getting up knowledge of advertising—buy the book that gives you this knowledge *Printers' Ink* is a text-book on the subject of advertising. It contains the advice and opinions of men who have made the advertising business their specialty, just as you have made the drug business your specialty. Two dollars a year spent for *Printers' Ink* will give one more points and ideas on how to advertise than any other paper published.—*E. W. Mitchell, in Printers' Ink.*

Agar-Agar in Glycerin Suppositories.

Lomuller uses agar-agar (*Gelidium corneum*) instead of gelatin, to make glycerin suppositories. It produces a more transparent mass which does not stick to the mould, does not clot, and gives a more elegant article when finished. The method employed is as follows: Take ten parts of agar-agar in small pieces, and 200 parts of water, heat until a soft paste is formed, then add, with constant stirring, 200 parts of glycerin.—*L'Union Pharmaceut.—Pharmaceutical Journal.*

A PRESCRIPTION appeared in the *Medical Gleaner*, written by Dr. W. C. Cooper, the constituents of which were as follows:

R. Tetrahydrobetanaphtholamine.
Sodium Thioparatoluidinesulphonate.
Orthosulphamidobenzoic anhidride.
Amidoacetoparaphenetidine aa, 5i.

M. Sig.: A tablespoonful every hour.

This was prescribed for a disease which the doctor calls Typhomalariopneumophthisicotrychinotetanoataxionephriticosplenitis.—*Pharmaceutical Journal of Australasia.*

3 GOOD SELLERS

VELROSE

SHAVING CREAM
SHAVING STICK
BARBER'S BAR

PAY YOU WELL. PLEASE YOUR CUSTOMERS

ATTRACTIVE COUNTER ARTICLES

Order Sample ½ dozen from your wholesale house to come with next order.
We supply Samples for free distribution with first orders.

THOS. LEEMING & CO.

MONTREAL

FRONT AND BACK VIEW

AMERICAN SILVER TRUSS

MANUFACTURED BY—
The Smith Manuf'g Co., - Galt, Ont.

The Silver Truss

IS A NEW INVENTION,
NEW IN PRINCIPLE,
NEW IN DESIGN,
NEW IN APPLICATION,
and the MOST PERFECT KNOWN.

The great success of this Truss in holding with comfort all kinds of hernia, whether adults, youths, or infants, all over Canada, the United States, and Europe, is phenomenal. They have been adopted by leading hospitals, surgeons, and rupture specialists of the United States, and by Westminster and Guy's Hospitals, London, Eng. No greater recommendation could be accorded any appliance than its adoption by the physicians and surgeons comprising the staffs of these hospitals, which rank among the largest and best in the world.

MANUFACTURED BY

THE SMITH MANUF'G CO., GALT, ONT.

LITTLE'S PATENT FLUID
NON-POISONOUS
SHEEP DIP AND CATTLE WASH.

For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

☞ 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at **$1.00**. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.

TRADE C H MARK

Little's Soluble Phenyle
DEODORISER & ANTISEPTIC
NEW DISINFECTANT.
FOR UNIVERSAL USE

CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and $1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton, and London, Ont., and Winnipeg, Man.

IT PAYS TO HANDLE

Le Vido

Water of Beauty.

A true specific for all Skin Diseases.

BECAUSE

It gives satisfaction to your customers.

It is a reliable, safe, and sure preparation.

It has been on the market for 25 years.

It is handsomely put up and extensively advertised.

It gives you a fair profit.

Order now through your jobber.

OUR SPECIALTIES

Boulanger's Cream Emulsion.
Dozen $4.00 — Sold at 50c.

"Le Vido" Water of Beauty.
Dozen $7.00 — Sold at $1.00

Dr. Scott's Pile Cure.
Dozen $1.50 — Sold at 25c.

Injection Wattan.
Dozen $5.00 — Sold at 75c.

Dermatonic Complexion Powder.
Dozen $1.75 — Sold at 25c.

THE MONTREAL CHEMICAL CO.,
MONTREAL.

Laboratory,
St. Johns, Quebec.

BRAYLEY, SONS & CO.

Wholesale Patent Medicines

43 and 45 William Street, - MONTREAL.

OUR SPECIALTIES:
TURKISH DYES.
DR. WILSON'S HERBINE BITTERS.

Sole Proprietors of the following:

Dow's Sturgeon Oil Liniment
Gray's Anodyne Liniment
Dr. Wilson's Antibilious Pills
Dr. Wilson's Persian Salve
Dr. Wilson's Itch Ointment
Dr. Wilson's Sarsaparillian Elixir
French Magnetic Oil
Dr. Wilson's Worm Lozenges
Dr. Wilson's Pulmonary Cherry Balsam
Dr. Wilson's Cramp and Pain Reliever
Dr. Wilson's Dead Shot Worm Sticks
Nurse Wilson's Soothing Syrup
Clark Derby's Condition Powders
Wright's Vermifuge
Robert's Eye Water
Hurd's Hair Vitalizer
Dr. Howard's Quinine Wine
Dr. Howard's Beef, Iron and Wine
Strong's Summer Cure
Dr. Howard's Cod Liver Oil Emulsion

WE GUARANTEE
TO CURE
PILES
CHASES OINTMENT
PILES
SKIN ITCH
ECZEMA
BLACK HEADS & ALL
ITCHY SKIN DISEASES
SCALD HEAD

ONTARIO VACCINE FARM

Pure and Reliable Vaccine Matter always on hand. Orders by mail or otherwise promptly filled.

10 Ivory Points, $1; 5 Ivory Points, 65 cents; single Points, 20 cents. Discount to the trade.

Address all orders—VACCINE FARM,

A. STEWART, M.D. Palmerston, Ont.

JOSEPH E. SEAGRAM

Waterloo, Ontario.

MANUFACTURER OF

ALCOHOL

Pure Spirits

Rye and Malt Whiskies

"OLD TIMES" AND "WHITE WHEAT"

PER DOZ.

No. 1. Nozzle and Shield, with Outlet Tubing . . $30
No. 2. " " Complete 2-qt. Fountain, 48

DISCOUNT TO TRADE ON APPLICATION.

BEST SYRINGE ON THE MARKET. SOLD BY ALL JOBBERS.

LYMAN, KNOX & CO.
Montreal and Toronto
Agents for Canada.

Pharmacy in England.

The "Perennial" President of the Pharmaceutical Society—The Preliminary Examination and Curriculum—Clarke's Blood Mixture—Capsules and Adulteration—Photography as a Chemist's Extra.

(From Our Own Correspondent.)

For the fourteenth year in succession Michael Carteighe has been elected President of the Pharmaceutical Society. No wonder, therefore, that he is called the "perennial" president, and that pharmacists begin to think that it would be impossible for the machine to progress without his guiding hand. It is frequently asserted by those who are jealous of his power, and the number of years in which he has wielded it, that there is no other body that has permitted this one-man policy for such a period. In this the critics are mistaken. We have in England a comparison close at hand that exactly fits with the Carteighean rule—I refer to the number of years in which art has been personified in this country through the perennial president of the Royal Academy—Sir Frederick Leighton. No one is prepared to say that Sir Frederick is the leading artist of the day, but his long presidency is entirely due to the fact that he is a splendid figure-head for an august assembly. The comparison would hardly appear altogether favorable to Mr. Carteighe, but the truth remains that much of his success is due to the fact that he is a splendid figure-head—his intimate friends notwithstanding. It is true that he has no little statesmanship in guiding and directing affairs, and more especially in managing his colleagues on the council, but his record as to legislative and even departmental achievements is absolutely *nil*. Against this it must be set down that it is by no means so easy to frame a measure satisfactory to the trade and palatable to parliament. Mr. Carteighe is a capital financier and has excellent abilities, but he has left undone several things that are of urgent importance to the welfare of pharmacy in England.

I will only refer to two in particular—the preliminary examination and the regulation regarding a compulsory three years' acquaintance with the dispensing of prescriptions. Attention has repeatedly been drawn to the ridiculous requirements of our pharmaceutical preliminary. Elementary English grammar, rudiments of arithmetic, and a slight knowledge of Latin are all the demands we make upon youths who are afterwards required to obtain a fairly sound insight into various branches of science. The inadequacy of the entrance examination is universally admitted, but apparently no councillor is prepared to move for its amendment. The regulation respecting the three years' dispensing is too often honored in the breach rather than in the scrupulous observance. Here is one of the greatest safeguards of pharmacy absolutely allowed to become a dead letter, instead of being exacted without fear or favor. If the regulation compelled every one to produce evidence of this three years' curriculum by means of indenture to a qualified chemist, a good deal would be gained. As it is, any qualified man may "sign up" the paper and it is accepted without reference or demur. It is thus that doctor's errand boys and grocers' clerks, who have a smattering of patent medicine knowledge, actually go to a pharmaceutical college to be "coached" through the minor examination!

Clarke's Blood Mixture is the latest candidate for opprobrium, according to *Science Siftings*. In spite of its twenty-five years' existence as a proprietary medicine, we are now informed that it is not only useless, but injurious. This opinion is formed upon the analysis of a seven-ounce bottle, the contents of which weighed 6⅝ ozs. The composition is stated to be as follows: Potassium iodide 1.23 parts, potash 0.15 parts, caramel 1.50 parts, spirit of chloroform 2.5 parts, water to make 100 parts. In connection with this analysis, I may mention that it is generally believed in the trade that at one time the liquid extract of sarsaparilla formed an important ingredient in this preparation. If the above composition be correct, it is evident that it is not now included, and therefore one of the principal remedies for the complaints for which it is recommended is now omitted. Readers of this letter may remember that a similar charge was made against another proprietary preparation, Koko for the hair, a few months back. This variation in the ingredients seems to me one of the most reprehensible features in connection with proprietaries. A druggist, in most civilized countries, could be fined if he left out the principal or most expensive ingredient in a pharmacopœial tincture, and rightly so. But the public are to have no safeguard or guarantee that the composition of a proprietary preparation has not been arbitrarily altered by the proprietor.

"Examine your capsules" will be the advice generally given after the paper recently read before the Society of Public Analysts. It was therein stated that castor oil was a frequent adulteration in santal oil capsules and also another oil—unsaponifiable, odorless, and not recognizable. The latter oil was probably the neutral water-white petroleum oil or liquid vaseline, which is quite ordorless, and very suitable for suspending insoluble bodies in capsules. For years cedar wood oil has been a favorite adulteration for santal oil in capsules, now castor oil appears to have taken its place.

Journals of pharmacy all over the world are appreciating the position of pharmacists to photography, and assisting the development of this addition to business by devoting space to descriptions of methods, new developers, and the like. It is becoming quite a usual sight at most of the large seaside resorts in England to find that several of the leading chemists have given considerable attention to the subject, and reserved space in their windows for cameras, lenses, etc. The extraordinary fall in prices of all photographic goods during the last few years has facilitated the operations of chemists in the direction of making new trade. Lenses with iris diaphragms that a few years ago cost 50s. each are now to be had at 25s. In the same way good working cameras are obtainable at about half the price paid only a few years back. There can be no two opinions that pharmacists should seize the favorable opportunity that presents itself, or in a few more years the retail of photographic necessities and accessories will become a recognized and distinct trade of itself. None are in the position to explain manipulation and suggest improvements to amateur photographers so well as the pharmacist with his chemical knowledge and his trade journal. There is nothing like a practical acquaintance with the subject, and all who propose taking up this branch of trade should unquestionably do some amateur work on their own account, if only to obtain the practical insight in order to explain difficulties and suggest improvements to their customers. A very fair stock of all the necessary apparatus for commencing a business in this line can be obtained for an outlay of about $300 to $400.

London, June 25th.

Pharmaceutical Association—District No. 10.

At the call of the secretary, the following druggists met in the Council Chamber in Stratford, on June 18th, for their annual meeting: Messrs. Ansley & McBride, of Port Dover; Hodge & Thomson, of Mitchell; Gayfor, of Ingersoll; C. E. Nasmyth, J. H. Nasmyth, Bosworth, Dutton, of Stratford; W. A. Karn, J. C. Karn, Scott, Pepper, Philips, Gunn, Walton, and White, of Woodstock.

The president, Mr. Karn, explained object of meeting, and also the affairs of the college, and at length gave a full description of the difficulties encountered in the late proposed amendments to the Pharmacy Act.

Special working committees were appointed to secure new members and report to the secretary: Mr. Bosworth, C. E. Nasmyth, Mr. Frleigh, Mr. Hodge, for the county of Perth; Mr. Ansley, Mr. Austin. and Mr. Yorke, for the county of Norfolk; and Messrs. Pepper, Gayfor, and McCallum, for the county of Oxford.

On motion of Mr. Bosworth, seconded by Mr. Gayfor, the secretary was instructed to forward to Mr. W. A. McCallum, of Tilsonburg, the late secretary, the hearty vote of thanks for his services in connection with the association and in all matters relating to the interests of the druggists. The annual meeting to be on the last Thursday in May, and the place of next meeting to be Woodstock. The officers elected for 1895-96 were: W. A. Karn, Woodstock, president; N. A. Bosworth, Stratford, vice-president; D. A. White, Woodstock, secretary-treasurer.

Correspondence.

Editor CANADIAN DRUGGIST:

SIR,—I must say that I was not a little surprised at the views advanced by "An Apprentice" in your last issue. I would not have wondered had such ideas come from some one in the seventeenth century; but it does seem to me they are entirely out of keeping with this more enlightened age.

He says: "Many advocate a higher standard of matriculation to the College of Pharmacy; but I think that would be useless. It points towards selfishness in those who think of it, and is a true evidence of a crammed but narrow mind. They say it would keep many from entering the calling of a pharmacist; but is that an unselfish idea?"

Such sentiments seem to me to be true evidence of an empty, not even crammed, and narrow mind. Is the drug profession to be lowered to the level of ditch-digging, so that any man, whatever his educational qualification might be, can enter it? One reason, I believe, why pharmacists have been and are to-day looked down on more or less by the learned professions, is because so many of them are comparatively ignorant men. And is this likely to be improved, I ask, by lowering the standard of matriculation, and thus allowing those who possess the mere rudiments of an education to enter on their professional career? If the standard of matriculation were lowered, what would be the result? Only those who were too lazy, or whose mental ability would not allow them to take up the higher work taught in our schools, would then enter the drug profession; while those whose mental ability and energy led them to grapple with more difficult problems would be found entering fields that would afford their talents a wider scope. I see no reason why matriculation for a druggist should not be as high as that of any other profession. There is nothing to hinder any young man of moderate ability and energy to fit himself for a much higher matriculation than is now required.

Again, he says, "In place of raising the examination for an apprentice, I would say make the apprenticeship a term of seven years instead of four." Here, again, the fossil displays itself. My friend seems to have the idea that knowledge, in the drug business, is acquired by the time spent at it, and not by the amount of mental work done. Had he been a little better qualified on entering the business, I think he would have found the four years' apprenticeship quite sufficient. Indeed, it seems to me that compelling all students to spend even four years as an apprentice is more or less of an imposition, for there are some who would be as well qualified in three years as others would be in four, or as some might be even in seven. If the term of apprenticeship were lengthened, students would simply put off studying that much longer, and would have to spend that much more time in doing what is commonly known as "soup work." Even with a four years' term the majority of apprentices do very little studying during the first two years, and if the term were lengthened they would simply be that much later in starting. This, I think you will concede, might lead to many fatal mistakes. For clerks who possessed the mere rudiments of an education to begin with, and who had done very little studying in the different branches necessary to make a competent druggist, however long they had been in a drug store, could not be expected to do intelligent work.

Again, he says, "There should be a two years' college course"; but he adds, "The course should not include much more than is now gone over." He seems very anxious that the standard of education should not be raised, but that students should be compelled to spend two years in doing one year's work. No doubt it will be necessary for some to clerk seven years, and spend two years at college, before they will be the proud possessors of an O.C.P. diploma; but why should those who have the mental ability and energy to become competent pharmacists, in the time now required, be forced to take a much longer time to cover the same ground? I think that all intelligent druggists and apprentices will agree with me when I say that the standard of matriculation should be raised! That every man should have an intelligent understanding of Latin, chemistry, and botany, before he is allowed to become an apprentice! Then, by studying from the very beginning of his apprenticeship, he might be expected to do intelligent work, and blunders would be much less likely to occur.

Further, he says, "More Latin is not necessary for a druggist, but anatomy, physiology, and therapeutics, should be taught in our college." I say emphatically that more Latin is necessary. For it is impossible to be a competent druggist without first having a clear understanding of the Latin language. Let more anatomy, physiology, and therapeutics be taught if you will; but do not dispense with the Latin at any cost.

As to the time coming when the "druggists will do all the prescribing and the doctors only diagnose the case," I think it is a long way distant. I have watched the drug business closely for the past few years and see no signs pointing in that direction, even with the present standard of education. But much less will such a time be likely to come if the standard of education for the druggist is lowered, even though the term of apprenticeship be lengthened to seven years.

I say, raise the standard of education! Keep abreast with the times! But give intelligent and energetic men a chance to reap some benefit from their labors. Let those who are able to take the course in the time now allotted to it do so; but those who are unable will be compelled to wait.

A. M.

Photographic Formulæ Wanted.

Editor CANADIAN DRUGGIST:

I am very much interested in the Photograph department of the CANADIAN DRUGGIST. Will you kindly give me some information through the department in July number? and very much oblige,

Yours, respectfully,

CHAS. HONAN.

Wolfville, N.S., June 27th, 1895.

(1) A method of making sensitive glass plates—an economical and *reliable* way that can be done by an ordinary amateur?

(2) A method of toning and fixing collodion paper to give it a purple-black finish same as professionals get?

Absolute Reliability.

That is the keynote to success. It wins and holds the confidence of consumers; it makes them advertising friends; it gives tone, character, and style, to the store and its service; it never tolerates any deviation from a high standard—and the result is an attractive store, a pleased constituency.

Customers are not long in discovering that it pays to buy the best. If the palate and eye are pleased, the price is rarely questioned. And, right here, we would emphasize the fact, that absolute reliability must apply to the credit department—the pass books, the rendering and collection of accounts. No matter how excusable the error, it will always arouse suspicion, especially where a bill or statement is rendered for an account settled. There must be such a system or supervision of details as will practically insure against mistakes. Many a customer has been lost because asked to pay a bill the second time, through the neglect of the clerk or cashier to credit the first payment.

Absolute reliability means a one-price system. This is the unwritten law in all large stores. Dickering over a price is unknown in the large department stores, because the people have been trained and accept that as the rule.

Absolute reliability means keeping up with the times. New goods and novelties are always to be found in stock. The best methods in the handling and delivery of goods are adopted. There is no suggestion of the "old fogy" about the reliable store He finds that it pays to avoid every appearance of wear and tear. Progress is suggested by everything connected with the store of the absolutely reliable dealer.—*American Grocer.*

Salithymol, or salicylic acid thymol ester, is a new antiseptic prepared by Kollo (Phar. Pest.). It forms a white crystalline powder of faintly sweet taste, slightly soluble in water, but readily so in alcohol and ether.

Argon is obtained by Guntz, of Nancy, by passing air over lithium in a glass tube at a moderate temperature. This method is an improvement on the customary magnesium process of absorbing nitrogen.

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Complete Containers

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Condition Powders,
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Baking Powder,
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Compound Licorice Powder,
Boxes and Wraps.
Powdered Borax,
Folding Cartons.
Cream Tartar,
Folding Cartons.
Soap Bark,
Folding Cartons, or Cartons and Wraps.
Epsom Salts,
Folding Cartons, or Cartons and Wraps.
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Folding Cartons, or Cartons and Wraps.
Cough Drops,
Folding Cartons—2 ounce and 4 ounce.

Or if there are any other lines you wish to put up, write us about them.

LAWSON & JONES,
LONDON, Canada.

SIMPLE, BUT SURE!

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TWENTY BARS ON A HANDSOME STANDING CARD

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I. R. COMBS, Special Values
TOOTH BRUSHES, Attractive Boxings
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MANICURES

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In Pint Bottles..... .....$5 00 per doz.
Winchester (½ Imp. Gal.)..... 2 00 each.
Imp. Gallon, in 5 gal. lots, and over 3 50 per gal.

With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

¼ Gross lots, and over.....$60 00 per gross.
(Packed in One-Dozen Cases.)

We use a Pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

We invite comparison with other manufacturers, and will cheerfully furnish samples for that purpose.

Your early orders and enquiries solicited through Wholesale Jobbers or direct from us.

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Lump, Crystal, Granulated,
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Radlauer's Somnal
AETHYL-CHLORALURETHAN
(REGISTERED)
THE NEWEST AND MOST EFFICIENT SOPORIFIC REMEDY

Taken in doses of 32 grains, or half a teaspoonful, in milk, ale, or cognac, produces in half an hour a quiet refreshing sleep, lasting from six to eight hours, with no unpleasant after effects. The effects of SOMNAL are more pleasant than those of Chloral Hydrate and Morphia. Experiments made in the Town Hospitals, Moabit and Friedrichshain, Konigliche Charité and Konigliche Universitats Poliklinik, Berlin, have shown that SOMNAL does not accelerate the pulse and does not upset the stomach. SOMNAL is especially recommended for Nervous Insomnia, Neurasthenia, Spinal Complaints, Infectious Diseases, Paralysis, Melancholia, Hysteria, Morphinismus, and Diabetes. The low price of SOMNAL enables its use in the poor and workmen's practice and in hospitals.

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(SALICYLE BROMANILIDE)
In the form of Powder, the most efficacious Antipyretic, Antineuralgic, and Antinervine

ANTINERVIN replaces and surpasses Antipyrin, has no hurtful secondary effects, and is cheaper. Taken in doses of 8 grains four times a day, it is an excellent remedy for Feverish, Catarrhal, and Rheumatic Pains.

ANTINERVIN is of especial service in cases of Influenza, Neuralgia, Asthma, Tuberculose, Yellow Fever, Malaria, Migraine, Gout, Rheumatism in the Joints, Diptheritis, and other typical Fevers

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The welding the two bulbs into one without any intervening space renders "THE TWIN" much stronger and less liable to break than any other heretofore offered.

It will also be found much more convenient to carry, requiring less room in a case or in the vest pocket. For these reasons, as well as for its **Guaranteed Accuracy,** "THE TWIN" is universally recommended by the medical profession.

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25 per cent. discount to all doctors who mention the "Canadian Druggist"; if in gold with chain and pin, $2 net.

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Does Pill Making Pay ?

By Albert N. Doerschuk, Ph.G., Kansas City, Mo.

The art of pill making is a source of revenue too much neglected by the pharmacist of to-day. There are those who say that it does not pay ; but experience teaches that it is one of the most profitable and satisfactory branches of pharmacy. While, of course, there are certain pills which the apothecary cannot manufacture with profit or satisfaction to himself, such as those of ichthyol, creosote, the oils and oleoresins ; yet, aside from these there are numberless other pills in constant use which he can manufacture, and which hold out opportunities for profit. It is the small things that the druggist does for his patrons which make him popular with them. When they learn that he is careful in small matters they become wonderfully attached to him, and will walk a dozen blocks, and past as many pharmacies to patronize him.

As an illustration of this, a single instance will suffice. A certain apothecary decided to manufacture compound cathartic pills, because those on the market were not uniform, and too often of little value. He made the first lot from the ordinary stock, but these did not prove very satisfactory, and he resolved in the future to use only tested standard drugs. After some experimenting he adopted the expedient of preparing compound extract of colocynth, and the extract of jalap, so as to have them strong and pure. As is well known, colocynth varies in strength from 5 to 50 per cent., and the best quality can be had at the same price as the poorer grades. There is also much difference in the virtue of the jalap and scammony found in the market. This apothecary purchased the best crude drugs, ground them, and made extracts to his own satisfaction. He then obtained the best quality of gamboge and mild chloride of mercury, and from these drugs he made a second lot of pills which were so highly satisfactory that they have made for him a most enviable reputation. He has continued in the policy thus inaugurated, and the superiority of the product is responsible for many a valuable customer that he has since gained.

This instance shows that with a little skill and a practical mind, the apothecary can draw to his shop patrons who have not hitherto been customers. People soon find out when the apothecary neglects them, and conversely, when he makes a constant, progressive effort to please, they soon discover the fact.

Another instance in evidence: A certain physician, making a specialty of nervous disorders, found it difficult to obtain a uniform and reliable pill of the valerianates of zinc, iron, and quinine. He spoke of this one day to a certain apothecary who was clever enough to see an opportunity for profit in just such predicaments, and the latter promptly offered to make the desired preparation, provided the physician would give the pills a fair trial. He did so, and it is needless to add that he now has the full confidence of the physician, and thus he profits by the prescriptions and all other patronage controlled by the physician. Moreover, the physician would never think of dispensing his own drugs, because he knows that the apothecary is clever and can be relied upon to keep only pure and first-class stock.

It is seldom that one finds a physician who has not a special formula, or number of formulæ, which he loved to prescribe on former occasions. The observant apothecary soon notices this, and, if he is shrewd, will coin such observation into many an honest dollar. Nothing pleases the physician more than when the pharmacist caters to his fancies, and thus the doctor's special pill may be made the basis of a combination between the pharmacist and the physician, which may last through many years.

It is easy to make pills, and coated pills at that. Thousands of apothecaries are doing it to-day without the slightest inconvenience, and it is only because they have not taken the pains to investigate the subject that the balance are not doing so. Pill making is easy, doubly profitable, and highly satisfactory in its every detail. It requires the outlay of very little extra capital, and gives a shop the appearance of being independent of manufacturing firms.

PRACTICAL HINTS.

Excipients.—As in other details, judgment is necessary in choosing an excipient for a pill mass. When the ingredients are sufficiently adhesive to be developed by it, water is the proper excipient ; but when they are not, it is necessary to use syrup, glucose, glycerin, glycerite of starch, tragacanth, or syrup of acacia. Pure glucose is probably the best adhesive excipient known. It has few incompatibilities, is colorless, very adhesive, practically non-volatile, and only a very small quantity of it is necessary to make a mass that is easily worked, and, best of all, not spongy.

Glycerin is of great value as an excipient, even when used in combination with glucose ; but only a very small quantity of it dare be used, for it is hygroscopic, and often gives a pill mass a permanent softness which is to be avoided.

The great objection to syrup, acacia, tragacanth and the glycerite of starch is that they often produce a spongy and unmanageable mass, which dries slowly, and becomes too hard when dry. Glucose has none of these undesirable features, and seems to be the ideal adhesive pill excipient. However, the same excipient cannot be used with all pills, and judgment in each instance in selecting the excipient is a prime requisite of a satisfactory pill mass.

Coating.—Gelatin is undoubtedly to be preferred as a coating. Coating with it is more quickly accomplished than with sugar, and has the advantage of being soluble in both the liquid and peptic parts of the normal gastric juice, while sugar is soluble only in the liquid. Pills can be gelatin-coated and dispensed in fifteen minutes, while sugar coating requires a much longer time.

"Beading" is one of the discouraging features in coating pills with gelatin. It can easily be avoided, however, by the addition of one grain of calcined magnesia to the mass of every fifty pills. This hardens the pill, and most effectually prevents "beading."

It is not well to heat the same gelatin too often. A molecular change occurs in gelatin after being heated several times, which renders it comparatively insoluble, and therefore useless as a coating.

Success in gelatin coating depends largely upon the temperature at which pills are dipped. It should not be boiling, but should be about the consistency of syrup, and just hot enough to drop freely. Practical experience is the best teacher as to this, however, and those who contemplate manufacturing coated pills will find full directions for procedure with any coating apparatus they may purchase.

The Ideal Pill.—The ideal pill is small, round, and easy soluble. It must be freshly prepared, from only the purest drugs, and should leave no hint of its ingredients upon the tongue. When all druggists manufacture their own pills as indicated above, the pharmaceutical millennium will be at hand.—*National Druggist.*

Best Forms of Quinine.

The Societé de Therapeutique recently appointed MM. Adrian, Berlioz, and Boymond, a committee to report on the above question. They conclude that the best salt is the hydrochlorate, it being the richest in alkaloid, sufficiently soluble, and less irritating to the stomach than the sulphate. The hydrobromate should be used only in cases rebellious to the hydrochlorate. As to the pharmaceutical form in which the hydrochlorate should be administered, compressed preparations are condemned, and pills made up with a soluble excipient or soft elastic gelatin capsules are recommended. Pills or capsules,containing each fifteen centigrammes of the hydrochlorate, and given one in the morning and one at night, or else before meals, suffice to keep the system under the influence of quinine so as to ward off attacks of malarial fever.—*The Lancet.*

Extemporaneous Perforated Funnel.—For filtering viscous fluids, A. M. Edwards (*Chem. News*) constructs a funnel by perforating a sheet of celluloid with numerous holes and bending it into funnel shape, supporting it in a retort-stand ring. After cleaning, it may be unrolled and put away flat.

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

JULY 15TH, 1895.

Supplying Department Stores.

The increasing number of what are familiarly known as department stores is a subject which is attracting much attention, and to no class of business men is it more menacing than to the druggist. It seems to be regarded as indispensable that each of these stores should have a "drug" department, whether it consist only of a few patent medicines,as is sometimes the case, or whether it includes a full line of drugs, drug sundries, and toilet goods, as we find it in some instances. The amount of trade which is done in these stores detracts seriously from that of the regular drug store, and in this city it is very seriously felt. As every one knows, the prices in the department store are reduced to a figure which makes it unprofitable to the retail druggist to compete with, and must eventually drive many out of business. There is no doubt that these stores can buy patent medicines and drugs as long as they have the money to pay for them, but it should be the endeavor of every wholesale drug and patent medicine firm in this country to render it as difficult as possible for them to procure their goods, and thus protect their legitimate customers, the druggists, who, it must be acknowledged, are the mainstay of the wholesale houses, and who should receive every consideration and protection from them. Are any of our wholesale houses selling goods direct to these department stores, or how do they manage so easily to procure stocks? How is it that,as soon as a new patent medicine is put on the market, one of the first to advertise it,and at a cut-rate price, is the department store? Does the retail druggist ever enquire from the wholesaler if he is selling to the man who is endeavoring to drive him out of business by selling at prices that he, the retailer, cannot afford to?

The wholesale trade cannot be too positive in their refusal to sell outside the drug trade; the retail trade expects protection and will have it. Looking into thedrug department of "The T. Eaton Co. (Ltd.)," in this city,the other day, we observed a large addition to the drug stock, a full stock of shelf bottles filled with the drugs usually sold, a large assortment of Fluid Extracts, manufactured by Lyman Sons & Co., Montreal, bearing their label, and a number of bottles of simple drugs, also bearing the same firm's label. Did Lyman Sons & Co. sell these goods direct or how did they procure them? We cannot believe that any drug firm with the standing that this firm has could lend itself to any such business. How, then, did they procure them? Our columns are open to this firm, or to any other, to say whether such transactions have taken place between them and any house outside the legitimate drug business.

What we will endeavor to do is to protect the druggist, and,by any means in our power, prevent such sales from going unnoticed.

Why Such Indifference?

Whether it is that druggists are more indifferent than those engaged in other occupations, or that the feeling of foolish jealousy of each member of the craft towards his neighbor exists, to a large extent, or that the state of trade necessitates the devotion of every minute to attending to the wants of customers, we cannot say, but we know that as a class they are very neglectful of what should prove a source of benefit to the trade generally. We speak now of organizations amongst druggists. Some time ago, an endeavor was made to create an interest amongst pharmacists by the formation of a Pharmaceutical Association for this province. The effort resulted in the organization of an association, and, at the first meeting held, officers were appointed, interesting papers read, and a seeming enthusiasm was awakened amongst those present. The call for the second meeting aroused no interest,and the meeting was declared "off." The same story may be told of the various divisional associations which once had an existence. As far as we are aware, there are only two of these associations which now hold any meetings. And it is not in this province alone that this lack of interest exhibits itself. In Montreal, a Druggists' Association was organized some years ago, but the interest taken in it is so slight that it is almost impossible to get a quorum, and then only by drumming up the members. To this Montreal association the druggists of that city are indebted for the comparatively satisfactory state of affairs existing in drug circles there, the very small amount of "cutting" in prices, and the cordial understanding which exists amongst the craft. And all this, and it is the same story everywhere, is accomplished by a few men, who not only have their own interests at heart, but who are faithfully devoted to the profession which they have chosen, and are willing to sacrifice time and money in order that pharmacy should hold the position it is entitled to.

Should this stolid indifference exist? Should it devolve on a few to look after the interests of the many? We must all realize that it is only by joint representation that our present pharmacy acts have been brought into existence, that our efficient colleges have been established, and that what protection we have in business has been secured. Should we, then, allow ourselves to fall into a state of lethargy, and possibly lose somewhat of what we have gained?

By regular attendance at local meetings, and the reorganization of provincial associations, where they have been allowed to drop, much might be effected in the way of regulating trade, of checking the inroads of other business men, and the advancement of pharmacy generally. And, aside from all this, these meetings have the effect of eradicating petty jealousies, of straightening out any differences in business, and promoting a feeling of sociability which should exist, not only between members of the same profession, but also between those resident in the same localities. We trust that, in the course of a few months, we will see the commencement of a more united and determined effort to have organizations of the kind wherever it is possible, and we guarantee that good will result, which will amply repay those who take part in them.

Answers to Correspondents.

I.W.—Harrop's Monograph of Flavoring Extracts is probably the best for your purpose. Published by Harrop & Co., Columbus, Ohio. The following are said to be excellent "fruit extracts."

Extract Strawberry: Bruise 4½ lbs. of strawberries; pour 3 quarts of alcohol over the mass, let stand for some time and filter. The product will make about one gallon of extract.

For extract of raspberry the process is the same except that raspberries are substituted for strawberries.

EXTRACT OF BANANA.

Banana fruit (peeled)	1 pound.
Alcohol	1 pint.
Water	1 pint.

Macerate fourteen days, then express and strain.

EXTRACT OF VANILLA

Vanilla beans	1 oz.
White sugar	1 oz.
Alcohol (70 per cent.)	16 oz.

Rub the vanilla and sugar together and digest in a closed vessel with 8 ounces of the alcohol for several hours at a temperature of 150° F. Then allow the mixture to cool, transfer to a percolator and having packed it firmly allow sufficient spirit to pass through to measure 16 ounces.

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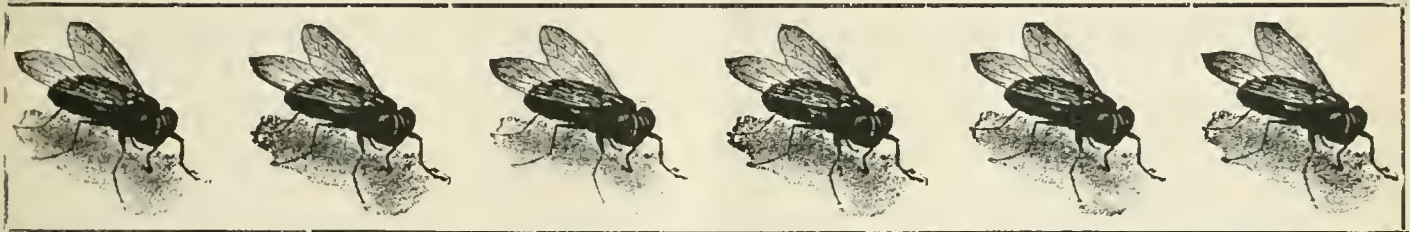

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Being Convenient and
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DIRECTIONS.
Place one of the Felts upon a dish or plate; keep wet with water. Use only enough water to soak the Felt. Flies will drink the poisoned water off the Felt and die immediately.
Placez un de ces Feutres au-dessus d'un plat ou assiette; tenez-les humides avec de l'eau. Usez seulement assez d'eau pour temper le Feutre. Les mouches boiront l'eau empoisonnee, sortiront du Feutre et morront immediatement.
CAUTION.—Should the liquid be swallowed by accident at once administer in large doses, Lime Water, Flaxseed Tea, or Iron Rust, followed by an emetic and drinks of Milk or Flour and Water.
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This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis, and all diseases of the Chest.

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The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

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THE CANADIAN SPECIALTY COMPANY

DOMINION AGENTS TORONTO, ONTARIO

The Art of Pharmacy.*

By J. H. Loomis, Omaha.

It is not in the province of this paper to discuss the art of pharmacy as practised in the early days gone by, or altogether as it is practised to-day, or how it shall be practised in the future, but its scope will be an attempt to present to you a few hints and notes gathered in the working room in the practice of pharmacy as an art, and a consideration of some of the aids and helps necessary to the carrying on of a pharmacy proper, while in connection with this, with your permission, we will dwell somewhat upon the question as to whether we, as retail pharmacists, in the practice of pharmacy as an art, are advancing toward or receding from the door which opens and entitles to us a professional calling. We preface our remarks with the observation that the pharmaceutical work upon the whole must be performed on the principle by which the painter mixed his colors, viz., "With brains, sir!"

Such matters as the way to hold a pharmaceutical tool or the method of using it does not find a place here, because expertness in these matters is acquired by observation and experience on the part of every pharmacist. The manufacture of chemicals will not be considered, excepting a few solutions. Competition at home and abroad insures to us a regular supply of chemicals at a price far below that at which we can make them, and our duty, so far as the public is concerned, is to see that they respond to the pharmacopœial tests. The manufacture of galenical preparations is another matter. Here we are in our peculiar province, and if we are to make the best of the opportunities and of the time which our business affords, we should be able to say of our preparations that we made them ourselves. The question of profit and loss will only be considered at this point. A successful pharmacist, while exhibiting at a pharmaceutical gathering wares of his own make, was asked by a brother pharmacist, "Does it pay?" "Yes," he answered, "and I have the satisfaction of having made them myself." Another painstaking pharmacist, by carefully preparing with his own hands a few green extracts and exhibiting them on his counter, a chance medical customer of note was led to give him the full benefit of his patronage, thus helping him on to success in his pharmaceutical career. In a sense the extracts made the man who made them.

Not every one of us possesses the sanctum which is dignified with the name laboratory, but must have a back room or other convenient place where stock is made. As to its fittings, it is unnecessary to mention to you, unless it be of one article which the writer has as yet never seen in a pharmaceutical place of business, either as an article of usefulness or as an ornament. I refer to a mantel. In the working room it could be utilized as a fume chamber, and in his dispensing room as an ornament—in both places as a ventilator much needed. Among the accessories may be mentioned the sand bath, covered or uncovered, water and steam bath, and evaporating dishes of various kinds. Much of the apparatus required may be of home construction. Certainly expensive apparatus is not the criterion of the work performed. A pie-tin filled with washed sand performs the work of a more elaborate sand bath. An iron saucepan holding from one to two gallons makes an excellent water bath. The lower part of an ordinary oatmeal cooker furnishes nearly all that is desired in a steam bath, and a perfect substitute for the sand and steam bath, to be used in conjunction with the gas flame, is an iron plate mounted on four legs, so that it is slightly higher than the supporting part of the burner. The many uses to which this useful article can be put will readily suggest themselves to you. The working-room of the operating pharmacist, whether it be large or small, cannot be perfect unless it have means at hand for testing drugs, chemicals, and finished products; also for working experimental trials of new processes and methods which may occur to you. Any good handbook of chemistry will furnish you information in the selection of any other than the most ordinary apparatus.

The *Pharmacopœia* of 1890 contains a very useful list of chemicals and reagents, which generally are all that is required for pharmaceutical testing In the consideration of ways of preparing products by maceration and percolation, maceration, with only a few exceptions, is used where percolation fails through faulty manipulation, and so little skill and attention is required in so simple a process that no attention will be given it here, unless it would be possible to tell you how to do away with the daily shaking which is necessary to obtain results at all satisfactory. But believing more in the effectiveness of percolation, and percolation, being an invention of the nineteenth century, is a wide step in advance in pharmacy over maceration; therefore the few thoughts given to this subject will be in the line of percolation rather than maceration. Much has been written on this subject in all of its details, good and indifferent. There may be some doubters, but percolation is surely established as the most efficient means for the exhaustion of drugs, and I am pleased to say that much of the progress made during the half-century of its use has been effected by American pharmacists.

In the selection of a percolator of a definite shape, allow me to say, in behalf of the drug, you have nothing to say, as the drug should always be allowed to make the choice. Obviously one of definite shape is not universally applicable, that is, for perfect results. For example, a percolator whose depth is far greater than its width is admirably suited in the making of preparations such as fluid extracts, in which the proportion of drug and menstruum are nearly alike; yet a drug which contains a large amount of soluble matter like kino could not be successfully percolated in a long, narrow percolator, because the percolate would soon become so dense that it would soon cease to descend. A thorough acquaintance of the nature of a drug will do much to carry on successful percolation. With a few hints in regard to handling material for exhaustion, we will pass on. In the comminution of dried drugs for treating them with menstruum in order to extract their virtues, care must be taken to have them not only of first quality, but of a proper fineness. With a few exceptions these can be ground to a proper degree of fineness in an ordinary drug mill. Sifting in a small way may be performed with brass wire sieves, and a bristle brush is useful in forcing the powder through the meshes. In extracting from dried drugs their virtues by percolation, care and attention must be given to the work before the drug is placed in the percolator. After the drug is properly moistened with the prescribed menstruum to saturation, place it in a covered container and allow it to remain until it is fully swelled or expanded, and the time it takes depends upon the menstruum and the texture of the drug. The more woody and fibrous the drug, and the more watery the menstrum, the more it will expand and the greater time it will require for successful operation. If the swelling is allowed to take place in the percolator, the drug becomes so tight as to stop all percolation. If the drug contains a large amount of resinous matter upon which its virtues depend, and an alcoholic menstruum is necessary, although swelling takes place only to a small extent, time must be given for the menstruum to perfectly soften and dissolve the resins and gums before percolation proceeds. In packing drugs, using an ordinary U.S.P. percolator, do not pack first portions too hard, but with each succeeding portion increase the pressure slightly. Mode of regulating flow of liquid is so simple as to not need mention. All preparations, including those made by percolation, should remain, under favorable circumstances, from four to six weeks, in order to allow them to attain a proper equilibrium before filtration. This brings us to the subject of filters and filtration, a separation of liquids from solids. The simplest plan for separating the fluid from the solid portion of a mixture is by subsidence and subsequent decantation or siphoning. A piece of India rubber tubing makes a very good siphon, the only objection to it being that a portion of the fluid is liable to get into the mouth in starting the flow. This objection may be overcome in two ways: First, the tube may be filled either with water, or the liquid itself, and then closing tightly one end of the tube and thrusting the open end into the liquid, and at the same time dropping the closed end lower than the

*Read at a meeting of the Nebraska Pharmaceutical Association.

surface of the liquid to be siphoned. Second: after putting in the siphon, cover the neck of the bottle tightly with the hand, and blow forcibly with one sharp puff through a space left between the thumb and forefinger.

Among the various means, aside from those just noted, and which are employed for the separation of liquids from solids, may be mentioned straining through filtering bag, flannel, muslin, or other cloth. Clarification by white of egg; filtering through paper with its attendant glass funnels, ribbed and plain, plaited paper, wire supports, etc., capillary filtration, filtration under pressure, upward filtration —these all have their merits in certain ways. I will make further mention of only one, and that with a desirable addition, that of the white felt filtering bag, with the addition of filtering paper, so disintegrated as to form a homogeneous mass or pulp. My first lesson in making paper pulp was acquired when a boy, in visiting a large paper factory. Boiling water maceration and churning about with a knife-like instrument is all that is necessary. It then can be thrown on cheese cloth, the water pressed out, and the pulp broken up and allowed to dry, when it is ready for future use. When wanted, it can be placed directly in the liquid to be filtered, but in nearly all liquids the best and most satisfactory way is to first place the dry pulp in some pure water, which soon breaks it up, then the water may be separated as before. The moist pulp can then be placed in the whole amount of liquid if the total amount of liquid is small, but if the amount is large, then only that amount which, when poured into the bag, fills it, the supposition being that the proper sized filter or bag is being used. The object in doing this will readily be seen. As the liquid flows through, the pulp is left as a coating on the filter. The first portion running through must be returned until it begins to run clear. This combination filter makes, for rapidity of action, for time saving, and for results desirable, it has proven with me, one of the most efficient.

The preparation of syrups may be considered a matter of extreme simplicity, and, in fact, with very few exceptions, so far as Pharmacopœia Syrups are concerned, this is, no doubt, correct, very little, either of art or science, being required, in most cases, to furnish presentable articles.

The first matter for consideration is the source of the sweetness—sugar. The Pharmacopœia is quite explicit in regard to it, rightly designating cane sugar. Beet-root sugar I have not found satisfactory, as it contains glucose to a greater or less extent, and to glucose are attributed many of the undesirable changes which chemical syrups undergo. Much of the sugar on the market is faced with ultramarine or other blue coloring matter, this coloring being used to neutralize the last shade of yellow color which remains in the sugar. Two syrups only will be noted here, syrup iodide of iron and syrup hypophosphites U.S.P. The Pharmacopœia directs the introduction of the water, iron wire, and all of the iodine at once, checking heat involved by application of cold water. In a pharmacist's busy career he is liable to overlook the reaction that is more or less violent, and consequent loss of iodine, which is sure to take place unless it is watched, and the temperature kept low. Iodine added in small portions at a time will avoid high temperature, and consequent worry. It also directs filtering the iodide of iron solution into cold syrup. I think there are advantages in using syrup at the boiling point, as the iron solution mixes more readily. The syrup is clarified to a certain extent, and at the same time sterilized, which is of great value in preserving syrups, or other non-alcoholic liquids. The addition of from one-quarter to one-half grain citric acid to the ounce of solution is an effective and, I may say, innocent preservative.

The word "elixir" to-day stands for a class of preparations flavored, sweetened, weak in alcohol, in which medicinal substances of various kinds are exhibited in palatable form, and their number has in recent times grown so large and varied that it is almost impossible for the pharmacist to keep a stock sufficient to meet the demands of his business. In making the base for nearly all elixirs the flavoring ingredients should be pure and fresh, for in their purity, to a great extent, lies the success or failure in this class of preparations. The essential oils used in making this base, being oxygenated as soon as exposed to the air in a loosely-stopped bottle, begin at once to deteriorate. Five to ten per cent. of spirits added to them will preserve them to a great degree. Elixirs containing chemicals require care in their making. Scale iron salts should be thoroughly powdered and dissolved in warm water, the iron being added and dissolved in small portions at a time. Quinine requires heat and a small amount of citric acid for solution, and is to be dissolved directly in the plain elixir. Neutralization for either alkali or acid should be very gradual until the neutral point is reached. The overlooking of this point is to my observation one of the greatest stumbling-blocks to success of the average pharmacist in this line of work, the neutralizing agent for acids being ammonia water. Test its purity by neutralizing it with dilute sulphuric acid. If it be a coal-tar product, its odor will make itself known, and is to be rejected for use here. In making solution of citrate of bismuth and ammonia, the solution remains turbid, due to the insoluble citrate of bismuth. To render complete solution, ammonia water or hydrate is added drop by drop at short intervals, until complete solution is obtained. Tasteless tincture chloride of iron, if used in making elixir gentian and iron, makes an elixir that is all that can be desired. But how can we avoid carrying a ready-made stock sufficient to meet all demands of our business, and keep our shelves clear of stock in this line seldom called for? Can it be done? I believe it can, and the answer is a simple one: By keeping concentrated solutions, like pepsin, iron, bismuth, calisaya, etc., of a known strength of your own make, and when you have an order from your physician or other source, for an ounce of something in this class, the formula of which you know, instead of being compelled to buy a pound and depositing the unused fifteen ounces on your shelf to worry you as to the likelihood of your being able to turn it into cash at some time in the near future, make the required amount out of your own concentrations and have the satisfaction of knowing that in place of having your hard-earned money invested in stock that is gathering fly-specks in the summer and dust and dirt in the winter, you can deposit it where you can view it occasionally as ready cash. It should be the ambition of every pharmacist to be able to manufacture his own preparations, if for no other purpose than to be able to determine as to the genuineness and quality of those he purchases of the wholesale manufacturing chemist. In connection with the subject of the art of pharmacy let us for a moment consider some of the aids and helps that will tend to place our calling on a professional footing, which, I believe, is the desire of every true pharmacist. There is so much to be said in regard to this that its magnitude makes one feel his entire incapability of treating the subject as it should be.

I have seen and heard this subject discussed *pro* and *con*, in print and by individual persons, and much in other ways, and, from the evidence already in, I am constrained to think, and am almost convinced, that, as it is practised to-day by the rank and file of our pharmacists and druggists, we have not the slightest claim on the medical and other professions, or the public in general, to be recognized as such. There seems to be a prevailing idea among us that pharmacist and druggist are synonymous terms—that they mean the same thing. To my mind they are distinct, a pharmacist being one who manufactures and dispenses drugs, while a druggist simply handles them, and a handler of drugs is no more entitled to professional recognition than he who handles the yard-stick in measuring the cloth for your summer suit. Therefore, there is a gulf between the two that can only be spanned by a thorough conception of a pharmacist's calling; a thorough preparation—a preparation that cannot be found at the soda fountain, at the cigar case, or selling patents of whatever kinds, —a preparation instigated by other motives than the dollars and cents it may bring—a choice of this calling as a life-work. A thorough training in a pharmaceutical school is for various reasons greatly to be desired if used only as a foundation for future work. Much of the after-work will depend on the firmness and stability of this foundation. No col-

lege faculty, no matter how competent ; no curriculum, no matter how broad or varied, can impart to one that which is necessary to a professional calling without his entire co-operation. A person with a true idea of a college training, and who has improved every opportunity there offered, and recognizes his knowledge and training obtained there to be only a base, or foundation, and has made it firm by his own personal work, aided by those competent to do so—then is he ready to go out in life and upon this foundation erect a superstructure that will compel the admiration of his fellows and open to him the professional door.—*Omaha Druggist.*

University Examination Questions.

The following are the papers submitted at the recent annual examinations for the degree of Phm.B., at the University of Toronto, 1895 :

Analytical Chemistry.

Examiner :—Graham Chambers, M.A., M.B.

1. Detect the acid and base in substance marked "A."
2. Detect the acid and base in substance marked "B."
3. Detect the base in solution marked "C."
4. Detect the acid in substance marked "D."
5. Does the solution marked "E" contain an alkaloid? If so, does it contain morphine, quinine, or strychnine?
6. Write equations illustrating the chemical changes which occur in testing substance marked "A."
7. Represent by equations the following chemical changes :
   (*a*) Potassium hydrate on mercuric chloride.
   (*b*) Potassium hydrate on aluminum chloride.
   (*c*) Hydrogen sulphide on ferric chloride.
   (*d*) Hydrogen sulphide on lead nitrate.
   (*e*) Ammonium sulphide on arsenous sulphide.
   (*f*) Potassium iodide on mercuric chloride.

Pharmacognosy and Microscopy.

Examiner :—J. T. Fotheringham, B.A.,M.B.

1. Name the gross specimens submitted.
2. Name and briefly describe, with drawings, one of the microscopic slides.
3. Oral.

Materia Medica.

Examiner :—J. T. Fotheringham, B.A.,M.B.

1. Name ten official drugs of the natural order *Leguminosæ.*
2. *Tragacantha.* Write full materia medica notes on it, indicating especially the characteristics of a good sample.
3. Name plants in which the following constituents are found : Pelletierine, santonin, emetin, cathartic acid, eserine, arabin, amygdalin, inulin, koussin, styracin.
4. Give, in one or two words, the therapeutic action of each of the following drugs : Jaborandi, Calabar bean, asafœtida, nux vomica, quinine, cocain, belladonna, cantharides, pomegranate, bitter apple.
5. Give natural order (or family) and habitat of the following : Rheum, ipecac, cetaceum, tanacetum, camphora, vanilla, zingiber, triticum, coccus, cubeba.
6. Give maximum dose of : Aq. menth. pip., decoct. aloes co., ess. anisi, extr. ergotæ liq., ac. carbol., inf. digitalis, liq. atrop. sulph., liq. trinitrini, sp. camphoræ, syr. scillae, tr. cannab. ind., tr. nuc. vom., vin. antimoniale.
7. Show how a drug like *ol. santali* can be both a stimulant expectorant and a diuretic, and antiseptic to the urinary passages. What is meant by local action of a drug, systemic action, remote action?

Practical Dispensing.

Examiner :—Chas. F. Heebner, Ph.G., Phm.B.

Note.—Candidates will dispense the following preparations with neatness, accuracy, and dispatch, labelling and finishing the medicines, as if designed for patients. The order and cleanliness in which each dispensing desk, with its stock of utensils, is left, *will be rated.*

Miss Georgie Woodland.

℞ Camphoræ.
Pulveris rhei... .... aa. gr. xx.
Pulveris opii..... gr. ij.

Misce. Tere ft. pulv. in chart. decem. divide, quarum cap. j omn. secundis horis donec leniatur dolor, et mitte emplast. Lyth. pollices tres longum, pollices duo latum super alutam inducendam.

Sig : Admove emplastrum statim ad partem affectam.

S. M. Green, Esq.

℞ Pulv. rhei..... ..... 0.065
Magnes. carb..... 0.049
Olei menthæ pip..... 0.032

M. fac. pil. mitte duodecim et unam post jentaculum et cœnam duas post prandium exhibeatur.

Miss Mary Mannell.

℞ Hydrargyri oxidi rubri..... ℥ j.
Paraffini mollis..... ℥ ss.
Cerae albæ..... gr. xx.

M. s. a. et ft. ung. hujus unguenti pauxillum, oculo affecto applicetur mane nocteque.

Hon. John Cunningham.

℞ Potass. iodidi.... ..... gr. lxiv.
Syrupi ..... f ℥ vj.
Spt. ætheris nitrosi (normal) f ℥ iv.
Aquam.... ..... ad f ℥ iv.

M. s. a. ft. mist. et Sig : Coch. ij ex aq. quarta quaque hor. sumend.

Chemistry—Inorganic and Organic.

Examiner :—Graham Chambers, B.A., M.B.

1. Explain what is meant by the terms (*a*) Acid Oxide, (*b*) Acid Salt, (*c*) Basic Salt, (*d*) Compound Ether, (*e*) Ketone, (*f*) Amine, (*g*) Amide. Give an example of each.
2. State the general methods for determining the atomic weights.
3. What volume of Ammonia gas measured at 27°C. and 600 mm. Bar. is required to neutralize 100 grammes of a solution containing 32 per cent. of Hydrochloric Acid gas.
4. The elements Nitrogen, Phosphorus, and Arsenic are said to belong to the same natural family. Explain fully the meaning of this statement.
5. Give an account of the chemistry of Mercury.
6. Give an account of the manufacture of three of the following substances : Potassium Permanganate, Soda by solvay process, White Lead, Sulphuric Ether.
7. Write equations illustrating the action of heat on
   (*a*) Ammonium Nitrate.
   (*b*) Ammonium Bichromate.
   (*c*) Primary Calcium Phosphate.
   (*d*) Ortho Phosphoric acid.
   Hot concentrated Sulphuric acid on
   (*e*) Potassium Iodide.
   (*f*) Sulphur.
   Nitric acid on
   (*g*) Solution of Ferrous Chloride and Hydrochloric acid.
   (*h*) Tin.
8. Give a classification of the Alcohols. State facts for considering Glycerine an Alcohol.
9. Write the constitutional formulæ of Acetaldehyde, Trimethyl Carbinol, Chloral, Urea, Benzaldehyde, Salol, Salicylic acid.
10. Give an account of the Chemistry of one of the following : Tartaric acid, Carbolic acid.

Prescriptions.

Examiner :—Chas. F. Heebner, Ph.G., Phm B.

1. Translate the following prescriptions into English :

(*a*) Recipe : Extracti opii, grani tres quartas partes, Pilulæ hydrargyri, grana quatuor, Extracti carscarillæ, grana tria. Contunde simul et divide in pilulas numero duas. Sumantur pro dosi hora IX^na^ vesperi hac nocte atque cras eadem hora. Mitte numero quatuor.

(*b*) Recipe : Guaiaci ligni rasi, sesunciam, Sassafras radicis, unciam dimidiam, Aquæ destillatæ, libras duas. Coque igne leni ad libram, sub finem coctionis adde glycyrrhizæ radicis contusæ drachmas duas et cola. Æger cochlearia tria ter vel quater die ante cibum capiat.

(*c*) Recipe : Antimonii tartarati semigranum, Aquam puram ad fluidunciam.

Misce et ægro haustum statim da et repete post horas duas, si ventriculus

emeticum non antea rejecerit, vel si alvus non laxata fuerit.

2. Translate the following expressions: (*a*) Detrahatur e brachio sanguis ad uncias decem statim. (*b*) Sumat unum omni nocte ad vices octo ex aliquo vehiculo crasso. (*c*) Fiat emplastrum pollices sex longum, pollices tres latum.

3. Write the following expressions without abbreviations and translate:

(*a*) Ft. mist. cuj. det. coch. mag. om. bih.

(*b*) Coch. ampl. ij ex. semicy. vin. aq. apud hor. undec. a.m. et hor. quint. p.m. quotid. sum

(*c*) Cap. coch. larg. dim. ex. coch. ij larg. aq. t. i. d.

Translate the following prescriptions, criticize fully, and state how you would meet any difficulties which might arise in dispensing them as written:

4. R. Bismuthi subnitratis.... 5j.
Sodii bicarbonatis..... gr. xxx.
Excipientis q. s.....
Misce ft. pil. no. xx.
Sig. Devoret æg. ij post jentac. prand. et coen. quotid. per mensem.

5. R. Acidi carbolici 5.00
Sodii bicarbonatis... 20.00
Boracis..... ..... 30.00
Glycerini..... 180.00
Aquam destillatam ad. 360.00
Misce S. A. ft. mist.
Sig. Gargarisma. Ut. dict. man. merid. nocteque utend.

6. R. Træ. digitalis..... f. 5j.
Ext. erythroxyli fl....
Spt. ætheris nitrosi. .
Glycerini..... ana f. 5j.
Aquae q. s..... ft. f 5iv.
M. Ft. mist. Exhibe coch. mag. bis quotid.

7. R. Ext. colocynthidis comp. gr. iss.
Pil. rhei compositæ..... gr. ij.
Hydrargyri cum creta... gr. iij.
Contund. ft. pil. et mit. tal. dos. no. duodec. quarum cap. j. sing. noct. h. s.

8. R. Acidi carbolici liq.... 5.00
Collodii flexilis..... 55.00
M. ft. pigmentum. In verucca man. nocteque ope penicilli camelini applic.

9. R. Cocainæ hydrochlor. gr. xxv.
Sodii biboratis..... gr. viij.
Aquam destillatam. ad f. 5iij.
Solve ft. collyrium.
Applica ad oculum sinistrum ut dict. tertiis horis.

10. *Acidum Carbolicum:*

(*a*) Write dispensing notes on its exhibition in pill and mixture.

(*b*) State the proportions of water with which it gives transparent solution, and how similar results may be obtained with other proportions of water.

(*c*) Give its dose and antidotes.

Botany.

Examiner:—T. McCrae, B.A.

1. Describe the structure of a growing point. Upon what conditions does growth depend?

2. Give an account of the reproduction of the Mosses.

3. What parts of the flower may form the fruit? Classify fruits with examples. Give an account of the methods of dispersion of fruits and seeds.

4. Describe the formation, structure, and functions of bark tissue.

5. Define the terms: bast, catkin, saprophyte, diclinous. Write short descriptive notes on (*a*) pollen, (*b*) protoplasm, (*c*) tracheids, (*d*) trichomes.

6. Carbohydrates in plants. Give an account of their formation, and compare green and colorless plants in this regard.

7. Organized and unorganized ferments. Explain these terms with a description and comparison of the action of the two classes.

Practical Pharmacy.

Examiner:—Chas. F. Heebner, Ph.G., Phm.B.

1. Prepare 56.7 c.m.^{3} of syrup of iodide of iron by the following formula, submitting a report in accordance with the subjoined synopsis.

Syrupus Ferri Iodidi.

Iron wire.....	90.72 grams.
Iodine.....	178.225 "
Sugar	2480.625 "
Distilled water.....	1163.25 c.m.^{3}
Product.....	2835.000 c.m.^{3}

Make a syrup with sugar and 708.75 c.m.^{3} distilled water. Use 566 c.m.^{3} distilled water to make the solution of iron iodide, and when completed add syrup 177.25 c.m.^{3} to it, and boil *gently* for five minutes. Filter the solution into the remainder of the *hot* syrup; wash residue and filter with 177.25 c.m.^{3} hot distilled water, and resort to the proper expedient for preventing reduction of the iron salt in the finished preparation.

2. Find the specific gravity of the substance submitted, and report as per following synopsis:

Liquid labeled.....
Specific gravity..... .....

Work:

Report for Syrup Iodide of Iron.

Amount of each ingredient:

Iron wire	.....grams or.....grains.
Iodine	.....grams or.....grains.
Sugar	.....grams or.....grains.
Product	... .c.m.^{3} or.....fl. ozs.
Water to make simple syrup	...c.m.^{3} or...fl. drs.
Water to make iron iodide solution	.....c.m.^{3} or...fl. drs.
Syrup added to solution	.....c.m.^{3} or...fl. drs.
Hot water used to wash residue and filter	....c.m.^{3} or...fl. drs.

(*a*) State how the iron iodide solution was made, and indicate reaction by an equation.

(*b*) Explain cause and manner of deterioration; and state how it may be prevented.

(*c*) What means were adopted to make the syrup permanent?

(*d*) Illustrate by chemical equation the action of the preservative agent used.

Pharmacy and Pharmaceutical Chemistry.

Examiner:—Chas. F. Heebner, Ph.G., Phm.B.

1. *Extractum Cinchonæ Liquidum.* (*a*) What are the official requirements as to strength? (*b*) Give method of assay. (*c*) State how you would standardize 1000 c.m.^{3} of percolate which essay showed to contain 80 grams of total alkaloids.

2. Give name, strength, and dose of each of the official (*a*) powders containing opium; (*b*) solutions, (*liquores*) containing opium alkaloids.

3. Contrast the value of the following as ointment vehicles: (*a*) Paraffinum Molle, (*b*) Adeps Lanæ, (*c*) Adeps Benzoatus. (*d*) Mention the most satisfactory method of incorporating alkaloids with fats.

4. *Acidum Hydrobromicum Dilutum:* (*a*) Strength. (*b*) Criticize the official method of preparation. (*c*) What is Fothergill's method? (*d*) Show by equations the chemical changes involved in both processes.

5. *Extraction:* (*a*) Mention in order of occurrence the forces and phenomena exhibited during the process, (*b*) explaining how each assists in facilitating the exhaustion of drugs. (*c*) Define Extractive. (*d*) State what changes it undergoes physically and chemically by exposure to heat in contact with air. (*e*) Why are solid extracts so generally not soluble to a clear solution in menstrua identical with those used in their preparation?

6. Alkalies being considered general precipitants of alkaloidal salts: Explain (*a*) the ready solubility of quinine sulphate in aromatic spirit of ammonia, (*b*) the efficacy of Tinctura Opii Ammoniata and of (*c*) Tinctura Quininæ Ammoniata.

7. Give official names for the following: (*a*) Elixir Vitriol. (*b*) Seignette Salt. (*c*) Hepar Sulphuris. (*d*) Sal de duobus. (*e*) Kermes Mineral. (*f*) Oil of Smoke. (*g*) Labarraque's solution. (*h*) Hoffmann's Anodyne. (*i*) Camphor Mixture. (*j*) Huxham's Tincture.

8. *Incompatibility:* (*a*) Classify and (*b*) define, giving an example for each class. (*c*) Explain the cause of the difficulty usually experienced in dispensing saline substances in strong solution in most medicated waters.

9. *Fluid Extracts:* (*a*) Mention the conditions to be considered in selecting appropriate menstrua. (*b*) Explain the serious objections to the use of fluid extracts in preparing infusions, decoctions, syrups, tinctures, etc., by dilution, illustrating with two examples.

10. *Oils:* How do fixed and volatile oils differ (*a*) physically and (*b*) chemically? (*c*) What constituent furnishes the odor and flavor of volatile oils? (*d*) Mention the only exception to the rule. (*e*) Explain the cause of the variations in consistence of the different fixed oils. (*f*) How may cotton-seed oil be detected in olive oil? (*g*) How is Oil of Bitter Almond prepared, and how may it be purified of its poisonous constituent?

Vellosine is an alkaloid of pareira bark, recently isolated by Fauvet. It has the formula $C_{23}H_{38}N_2O_4$, and melts at 184° C. It appears as yellowish crystals, insoluble in water, but soluble in ether, chloroform, and hot alcohol.

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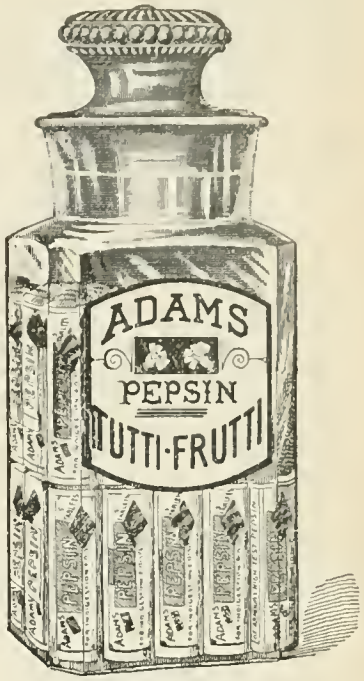

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Dispensing Counter.

Simple Pill Counter.—According to Buwa, an extremely useful and simple pill counter can be obtained by making a shallow tray in the shape of an isosceles triangle. If the pills are thrown into the tray and shaken to the apex the first row (in the apex) will contain one pill, the second two, the third three, and so on. The number of pills on the tray can therefore be easily ascertained by counting the rows and referring to a previously calculated table (*Pharm. Post*, xxviii., 237).

An improved ointment jar has been placed on the market by a German manufacturer which seems to possess distinct advantages. A circular plate, which fits snugly into the cylindrical jar, is provided with a perpendicular rod with a screw thread cut its entire length. After setting this in the jar the latter is filled with the ointment and the peculiarly constructed lid adjusted, and then a thumb-screw is applied to the protruding rod. Near its periphery the lid is provided with an opening closed with a screw-cap. The jar being completely filled, its contents cannot be influenced by the air, and this condition is preserved to the last, inasmuch as it is never opened for removing a portion of the ointment, this operation being effected by turning the thumb-screw, when the contents will be forced out of the small opening.

Dispensing Digitoxin.—In administering digitoxin, which is very soluble in water, care must be taken that the vehicle is so adjusted in alcoholic strength that re-precipitation does not take place in the stomach, or a cumulative physiological action from successive edoss may result. According to Corin this may be avoided by dispensing digitoxin as follows: Digitoxin, 2 to 3 milligrammes; chloroform, six-tenths cubic centimetre; alcohol, 90 per cent. by volume, 12 cubic centimetres; distilled water up to 150 grammes. One-third part to be taken for a dose (*Repert. de Pharm.*, after *Scalpel.*)

Powdering Camphor.—A writer in a German journal says that if camphor be powdered in the following manner it will not again agglomerate: Dissolve the camphor in 1½ parts of alcohol, precipitate by the addition of four parts of water; collect the precipitate, wash with an abundance of water and dry. By keeping an account of the quantity of camphor used, the quantity left in the diluted alcohol can be calculated, and this solution used for making tincture, etc.

Formulæ for Dispensing Alumnol.—(1), in the pure state as a dusting powder for venereal sores; (2), mixed with 80 to 90 per cent. of French chalk for burns; (3), in 1½ per cent. solutions for washing excoriations, acne or eczematous surfaces; (4), in from 2 to 10 per cent. alcoholic solution for urticaria, sycosis, etc.; (5), as an ointment, alumnol, 10 parts; hard paraffin, 5 parts; liquid vaseline oil, 35 parts; anhydrous wool-fat, 50 parts; (6), as a collodion, collodion, 160 parts; castor oil, 20 parts; alumnol, 18 parts.—*Les Nouveaux Remèdes*, January, 1895.

Mass for Medicated Bougies.—Cacao butter, 4 parts; powdered gum acacia, 2 parts. Mix intimately and add, with constant kneading, a mixture of glycerin, 1 part; water, 2 parts. If required, the quantity of cacao butter may be slightly increased.—*Pritzker; Rev. Therapeut.*, February, 1895.

Creosote Pill-Mass.—The *Pharmaceutische Zeitschrift fur Russland* adds the following to the list of methods suggested for preparing a durable and efficient creosote pill-mass:

Dissolve 2 parts of gelatin in 1 part of water and 8 parts of glycerin, by the aid of heat, and let it stay in the water-bath until all the water is driven off, which may be ascertained by weighing the capsule and its contents. To this *massa gelatinosa* add 30 parts of creosote, while the mass is still warm, and keep the mixture in a tightly closed vessel. When creosote pills are desired, they may be prepared from this mass, every 4 parts of which contain 3 parts of creosote, by adding any desired vegetable powder. The journal adds that the pills keep well, and that they may be coated by any of the ordinary processes.

The Care of Stock—Ointments.—If there ever were a subject honey-combed by the pen scratches of pharmaceutical writers, it is this same one—ointments. When we consider that there are twenty-three official ointments, besides being six cerates which are of kin, it would seem that so few in the matter of stock could be easily handled. But two ointments are required to be freshly made, yet experience teaches us that it is advisable to have as many as possible to be extemporaneously prepared.

To name the list of proposed ointment cases would take almost a page of this journal. It is like remedies for an ailment; the more extended the therapeutic list, the more difficult to handle the trouble. Just so with ointment cases. The majority of U. S. P. formulæ call for benzoinated lard. This is often improperly prepared, and, besides, the lard is not what it should be. Experience tells us that it is hazardous to heat the lard of the market to any high temperature. The fact is, it is just as well to not even warm it. The lard carries a certain per cent. of water sometimes, and is often a mixture of oils brought up to the required consistency and melting point by means of some of the stearins. Heat dissipates the water, melting the stearin. In cooling, the latter crystallize out, and the pharmacist has a hopelessly granular product. Yet we shall pass by all of this, and speak only of containers.

The paper label for stock ointment jars is very probably a thing of the past, for it soon becomes grease-saturated, the letters growing obscure. The employment of porcelain jars is not advisable, for in time the enamel cracks, admitting the ointment to the porous interior of which the jar is composed, where it rapidly becomes rancid by oxidation. The glass label fastened on with cement is a failure. If you strain a warm, melted cerate like cerat. resinæ into the shop jar having a glass label fastened on by cement, the wax melts or softens, and the label either drops off or gets out of line. There seems to be no alternative but to turn in the matter of containers to glass—either blue, opal, amber or milk, or cryolite ware. Either or all are good. The white ware is neat, yet is quite brittle, owing to the large quantity of oxide, usually zinc, added in order to give the ware an opaque white color. The lettered ware with letters blown in the glass and ground on the face similar to the reagent bottles is the best modern achievement. This can be improved upon, in the opinion of the writer, for the lettering lacks clearness.

To color with paint the ground surface of the letters is quite a piece of work, besides being easily worn off. Now, if the manufacturers would only indent these same raised letters, or have indented letters blown in the ware, and fill up the depressed spaces or letters with a plastic cement, which would, upon drying, harden like stone, it would be all that is desired. Such a paste could be made of glycerine, or litharge, or any dry pigment massed with varnish, and could be colored brilliant yellow, red, or black as desired. The letters then would be of a contrasting color and indestructible, besides capable of being repaired with new cement when needed. It might be possible to bake the color in, but hardly practicable, for the heating of glass is not a cheap matter, being less easy of accomplishment than if the ware was of porcelain. Another desideratum would be a cover made of some material that is difficult to break. Every ointment shelf has a few jars without lids—broken by the boys always—and looking in the row like so many soldiers with their hats gone.—*F. T. Green, in Pacific Druggist.*

A New Compound.—The product of the interaction of acetanilid and mercuric acetate is, according to Pesci, paramercuridiphenylenediacetylmercuridiammonium acetate. If this should be put forward as a new remedy, we trust a shorter name will be found for it.

Distilled water from which all gases had been set free, protected by covering it with oil, has been frozen by Prompt without any dilation of the volume originally taken.

Pharmaceutical Notes.

Bismuthol.—Under this name Radlauer has introduced a body, which is a bismuth sodium phospho-salicylate, or is described as such. Its description under this name renders it probable that it is merely a mixture of phosphate and salicylate rather than a true chemical compound. It is said to possess all the virtues, and none of the disadvantages, of the components. It is described as a powerful but non-toxic antiseptic, without irritating properties. As a dusting powder, it is to be used with talc in the proportion of 1 to 4. As an ointment, it is mixed with vaseline in the same proportion. As a solution, 1 in 40 of aqua dest. is suggested.

Abietic Acid.—This acid has been isolated in a pure state from American colophony by Mach. It possesses the composition, $C_{19}H_{28}O_2$. It forms colorless crystals, melting at 153°—154°, insoluble in water, easily soluble in alkalies, alcohol, ether, chloroform, and benzol. The potassium salt, $C_{19}H_{27}O_2K$, is crystalline if deposited from alcohol, but not from water. The barium salt is an amorphous white powder. By oxidation with alkaline permanganate, abietic acid forms a ketonic acid of the formula $C_{10}H_{16}O_3$. It has been generally understood that this acid was identical with pimaric acid. It is not, however, either identical or isomeric. Pimaric acid possesses the formula $C_{20}H_{30}O_2$, and melts at 212°.—(*Monatsh. f. Chem.*) *British and Colonial Druggist.*

New Indiarubber Cork.—A French firm has recently introduced a new form of indiarubber cork. The rubber is hollow, and at one end a hard disc is attached, through a perforation in which a rod passes to the bottom of the cork. On pressing the rod the stopper elongates, and can be introduced into the neck of the bottle; on releasing the pressure the stopper contracts in length, but increases in diameter, and will be firmly held by the neck, which of course should be slightly smaller than the cork.—*Apotheker Zeitung.*

A peculiar substitute for window glass, known as "tectorium," is stated to have been employed in Austria, Italy, Germany, Switzerland and Russia as a covering for hothouses, marquees, verandahs, windows of factories, roofs, and stores, etc. It is a special, insoluble, bichromated gelatine, translucent as opal and incorporated in wire gauze.

Sandal-wood Oil in Pills. — M. Calmel (*Rev. pharm. des Flandres*) mixes sandal-wood oil, 5 gm. with calcined magnesia. 0.5 gm., and then adds the mixture to colophony 4 gm., which has been melted at a gentle heat. The mass is said to be easily rolled and cut into pills after cooling.

Clarifying Powder.—To facilitate the obtaining of perfectly bright solutions of essential oils in water, E. W. Lucas proposes the use of a mixture of powdered paper, asbestos, and kaolin, in some such proportions as the following:

Paper powder (obtained by rubbing dried white filter paper through a 20-mesh sieve	1 ounce.
Asbestos (sifted)	1 ounce.
Kaolin	10 ounces.

Mix lightly together, finally sifting. The powder should be shaken up with the turbid liquid for a few minutes and poured on the previously wetted filter, the filtrate being returned until it passes through bright, which it does in a short time. The powder is not limited in its use to the solutions mentioned, but, as may be inferred, answers well for other liquids also.—*Druggists' Circular.*

Traumaticin.—Traumaticin is a saturated solution of gutta-percha in chloroform; it is most advantageously prepared as follows: The lightest-colored gutta-percha procurable is cut into small pieces and macerated with twelve or fifteen times its weight of pure chloroform for twenty-four hours, with frequent agitation. The mixture is then transferred to a retort, and about one-third of the chloroform distilled off over a water bath. The traumaticin thus obtained is a thick homogeneous liquid, to which the requisite medicament may be added. For ichthyol traumaticin three parts of ichthyol are added to every ten parts—similar proportions are used for salol, lysol, and phenol. Corrosive sublimate is added in the proportion of one part of sublimate to one hundred parts of simple traumaticin. If the simple traumaticin should be colored, and a colorless medicament is to be added, it may be decolorized by means of animal charcoal. It is best applied with a brush of hog's bristles, and forms a thin, impermeable, pliable pellicle when the chloroform dries off. It gives rise to no discomfort, except a sense of burning when first applied, due to the chloroform. Traumaticin of ichthyol is of special service in the case of erysipelas.—*Bull. Gen. de Thérap.; Phar. Journal.*

Oleate of Ammonia as a Cleansing-Agent.

To make the oleate take

	Oz.
Oleic acid	1
Spirit	1
Solution of ammonia	14

Pour the acid into a bottle; mix the spirit and ammonia, and pour into the bottle. Cork tightly, and allow to stand a week or more until saponification is complete.

This furnishes a product superior to that made by any other means tried. It can be diluted with ammonia or water as wanted, and is the product meant to be used in the following:

FOR CLEANING GLASSWARE IN LABORATORY.

	Oz.
Powdered pumice-stone	2
Oleate of ammonia	3
Solution of ammonia to make	16

Shake before using.

LIQUID SHAMPOO.

	Oz.
Oleate of ammonia	1
Borax	½
Eau de Cologne	1
Glycerine	1
Water to	16

This will be found excellent, and not nearly so harsh on the scalp as the ordinary ammonia shampoos.

FOR CLEANING CLOTH

the following will be found excellent, and shows little disposition to separate:

	Oz.
Oleate of ammonia	2
Solution of ammonia	2
Ether	1
Benzine	5
Chloroform	1

Mix the ammonia and oleate; shake well, and add the ether; shake, and add 5 oz. of benzine; agitate thoroughly. Then add 1 oz. of chloroform and shake well. Allow to stand a few minutes, and shake at intervals, when a mixture having the consistency of cream and showing but little tendency to separate will result.

FURNITURE POLISH.

	Oz.
Oleate of ammonia	2
Solution of ammonia	2
Shellac varnish	6
Boiled linseed oil	6

Mix the ammonia and oleate, add the shellac, and shake well; then add oil, and shake thoroughly.—*Frank Edel in Bulletin of Pharmacy.*

An improved container for dry extracts has been devised by an Austrian apothecary, intended to prevent agglutination of the powdered extracts. The improvement consists in a hollow glass-stopper, in which quicklime may be kept in such a manner as to admit of the absorption of any moisture in the vial.

Artemisin is a colorless crystalline body discovered by Merck in artemisia maritima, being found in the mother liquor after the separation of the santonin. Preliminary investigations lead to the belief that this new body is closely related to santonin, and may possibly be regarded as oxysantonin.

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References to ANY past student.

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Toilet Papers and Fixtures form part of the Stock of a well-equipped drug-store.

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The original French Coca Wine; most popularly used tonic-stimulant in *Hospitals, Public and Religious Institutions* everywhere.

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Strengthens the entire system; most Agreeable, Effective and Lasting Renovator of the Vital Forces.

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CLARETS AT HALF PRICE

The Bordeaux Claret Company, established at Montreal in view of the French treaty, are now offering the Canadian connoisseur beautiful wines at $3.00 and $4.00 per case of 12 large quart bottles. These are equal to any $6.00 and $8.00 wines sold on their label. Every swell hotel and club are now handling them, and they are recommended by the best physicians as being perfectly pure and highly adapted for invalids' use. Address: BORDEAUX CLARET COMPANY, 30 Hospital Street, Montreal.

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THE FINEST 5ct. Cigar

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JUST TRY IT.

IF YOU USE THE

Red Star Toothwash Bottle

You will beat your neighbor, as no other approaches it for beauty.

Scant 2 oz. (looks like a 3 oz.) complete open crown sprinkler at $7.83 net per gross. Sample sent on receipt of 5 cents to pay postage.

T. C. Wheaton & Co., Millville, N.J., manufacturers of Flint, Green and Amber ware, and the largest factors of Homeo. Vials in the world.

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NO MORE BALD HEADS, NO MORE GREY HAIR
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CLEANLINESS, BEAUTY & EFFICACY ARE THE PROPERTIES OF THIS RESTORER
ASK YOUR DRUGGIST FOR IT.
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A PERFECT TEA

MONSOON TEA

FINEST IN THE WORLD.
From Tea Plant to Tea Cup in its Native Purity.

PACKED BY THE GROWERS
And sold in the original packages, ½ lb., 1 lb. and 5 lb. caddies.

If your grocer has none, tell him to order from
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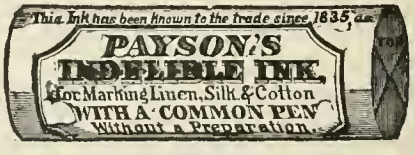
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INDELIBLE INK,
For Marking Linen, Silk & Cotton
WITH A COMMON PEN
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Piso's Remedy for Catarrh is the Best, Easiest to Use, and Cheapest.

CATARRH

Sold by druggists or sent by mail.
50c. E. T. Hazeltine, Warren, Pa.

Pharmacy Abroad.

Turkish Pharmacy Students' Picnic.—The Sultan is the father of his people, verily. He is accustomed to give students of the government schools a picnic on the beautiful meadows of the Sweet Waters at Kiathané. Amongst those so treated recently were the professors and students of the veterinary and pharmacy schools. It may interest pharmacy students in England to know what they did. They met in the morning near the Kiat Haneh bridge, whence they marched, with bands playing, to the spot appointed for the picnic. On their way to the Sweet Waters they made a short halt before the Mausoleum of Eyoub, and heard a prayer recited by an imam. General Ismail Pasha, aide-de-camp of the Sultan, represented his Imperial Majesty at the picnic, and Marshal Zeki Pasha, Grand Master of Artillery and director-general of military schools in the capital, was also present at the *fete*. Three speeches were made in the course of the day—namely, by the Sultan's representative, by Marshal Zeki Pasha, and by one of the pupils.—*Chemist and Druggist.*

Note on the Norwegian Pharmacopœia.—Amongst the additions and alterations in the new edition of the Norwegian Pharmacopœia, we note the following: Acetanilid: This body is described as melting at 114° (the German Pharmacopœia gives 113°), and soluble in 200 parts of cold water. The maximum daily dose is given as two grammes. Antipyrin: The limits of melting point here allowed are 110°—113°, which, in our opinion, is unnecessary. Salicylic acid is given as melting at 156°, as against 157° in the German Pharmacopœia, and 155° in the B.P. Hyoscine (hydrobromide) is retained as the name of the alkaloid known formerly under that name, in spite of Schmidt's researches, which caused the Germans to substitute the name scopolamine for this body in their new Supplement. The formula is given as $C_{17}H_{23}NO_3$, instead of $C_{17}H_{21}NO_3$, as would have been expected. Glycerine is to be tested for copper, lead, arsenic, oxalic acid, lime, sulphuric acid, ammonia, sugar, and butyric acid. Lanoline should not lose at 100° more than 30 per cent. of its weight. Saccharin is to be examined for sugar. Under the ordinary galenicals there is nothing worthy of special note, except that tincture of digitalis is to be made from dry leaves, whereas the German tincture (Fingerhuttinktur) is made from the bruised fresh leaves.—*British and Colonial Druggist.*

Pharmacy in Denmark. — In an article in the *Journal de Pharmacie et Chimie*, by A. Wunsch, a Danish pharmacist, it is stated that there are 169 pharmacists in Denmark, Iceland, and the adjacent islands, *i.e.*, about 1 per 13,577 of the population. Copenhagen, the capital, with a population of 312,859, has but 21 pharmacies, or 1 per 14,898 individuals. The licenses to carry on business are either "real" or "personal." The former, none of which have been granted since 1842, number 89, and are identified with certain pharmacies which may be sold and bought with the licenses attached. The purchaser must in any case be 25 years old, and possess a satisfactory diploma. Pharmacists in Copenhagen must have their diplomas endorsed "very good," whilst those who simply have the mark "good" may practise pharmacy anywhere else throughout the country, and those whose diplomas are marked "medium" only must be examined anew before they can practise.

The course of study insisted upon extends over six years, three years as pupil in a pharmacy, one as assistant, and eighteen months at the school of pharmacy. According to the most recent legislation, all licenses granted in future will be personal only, expiring with the death of the holder. The widows of deceased pharmacists are allowed, however, to carry on business provisionally, though for a long period, if a properly qualified pharmacist is in charge, and 18 out of the 81 businesses with personal licenses now belong to widows.

Pharmaceutical Exhibition at Brussels.—The *Société royale de pharmacie de Bruxelles* will celebrate the fiftieth anniversary of its foundation, on August 15th next, by a national congress of pharmacy at Brussels. In connection with this there will be an international exhibition of pharmaceutical apparatus and products. Both the congress and the exhibition will last for three days. The five sections of the congress will deal with pharmaceutical legislation and ethics, theoretical and practical pharmacy, professional interests, the analysis of foodstuffs and commercial products, and hygiene and toxicology, respectively. The six sections of the exhibition will be devoted to fixtures, appliances, drugs, pharmaceutical preparations, accessories, and special products. Particulars may be obtained of M. L. Van Hulst, pharmacien, 12, rue Malibran, Brussels.—*Pharmaceutical Journal.*

A Pharmacy in China.*—The premises occupied by the Chinese pharmacist usually consist of a shop on the ground floor, a storeroom at the back, and a gallery which is reached by a winding staircase leading upwards to the roof, which is flat and forms a terrace; the back room also serves as a laboratory. Both the gallery and the shop, which are connected, are filled with all possible articles relating to pharmacy and surgery. By the side of the gallery are built two smaller rooms, which seem to be equally used as storerooms, and at the same time as sleeping rooms for the assistants. On the terrace itself various herbs and roots are laid out to dry in the sun.

The proprietor of the business does not live on the premises, but spends his leisure time at his house outside the town, while the assistants are left in charge of the shop. The streets in China are very narrow, so that the shop is almost always cool throughout the day. The doorway is remarkably high. On the right and left of this a counter extends along the whole length of the shop, terminating at right angles, so that it is impossible for the public to see what the assistants are doing. A row of seats is placed in the body of the shop for the convenience of customers, and the walls are decorated with advertisements and mottoes relating to pharmacy. Of these maxims only a few deserve special record; for instance, a favorite motto is, "Two eyes are needful to the druggist when buying drugs; the doctor only needs one eye, and the patient should be blind." Special attention is paid to the furthest end of the shop, immediately opposite the entrance. Here the pharmacist places neat rows of porcelain jars, while in between carefully labelled drawers are fitted, and on the top of the whole is an eight-sided urn of tin or some other bright metal, usually surmounted with a board bearing the owner's name. In a corner of the shop stands an altar dedicated to the memory of the owner's ancestors. On it perfumed candles are burnt and a number of the favorite dishes of the departed are spread out. At certain times of the year bits of colored paper are burnt on the altar, which are supposed to represent different utensils and articles of apparel needful to the deceased in his after-life. This tender thoughtfulness for the comfort of the departed comprises nearly the whole of the Chinaman's idea of religion.

The proprietor is generally seated at the entrance of the shop, from whence he directs the management of his business. All prescriptions are brought to him. He examines them and hands them to his assistants to be made up subsequently. At the entrance, too, all consultations take place, and prices are agreed upon. A Chinese laboratory is not by any means overstocked with apparatus. The whole plant consists merely of a few big marble or granite mortars, a set of sieves, and a couple of fire bricks; in fact, the Chinese make no distinction between the sciences of chemistry, physics, and natural history. A certain number of chemical preparations are certainly concocted by the native pharmacists, but their manufacture is not based on the slightest scientific principle. Thus, methods of employing specific weights are entirely unknown to the average Chinese operator. A few exceptions may be found among those who have come frequently in contact with Europeans, and may have thus learned to place some value on apparatus and appliances which they have previously despised.

*Translated from the *Apotheker Zeitung*.

The following recipe for the manufacture of a sublimate was given by Dr. Ivan, a member of the Franco-Chinese mission, to the authorities in Paris: Sulphate of iron, 940 grammes; sulphate of alumina, 920 grammes; potashes, 900 grammes; sulphate of mercury, 120 grammes; an unknown sulphate, 600 grammes; ordinary table salt, 600 grammes; borax, 930 grammes. These ingredients are mixed in a certain order, and are then exposed to fire heat. Of course, from a European standpoint, such a concoction would be condemned as useless. In fact, most of the Chinese prescriptions are only put on paper with a view to calculating the cost of the ingredients. No notice whatever is taken of the proportion or effect of the drugs. Naturally, this method saves our Chinese friend from many of the difficulties with which the European pharmacist has to cope, and his whole method of doing business is on a par with this process. The Chinese classify natural products in the most irregular manner without the least regard for appropriateness. Of course, in a country where the science of pharmacy in all its branches is so imperfectly understood, it cannot be expected that much good can result from its practice; still we must give our Chinese colleagues credit for being very shrewd observers, and for possessing a thorough knowledge of the qualities of all the products which are dealt with in their drug markets. The "Pen-tsao," or Chinese Pharmacopœia, is almost daily consulted by the Chinese druggist, and is very highly esteemed.

Great care is exercised by the native druggists in collecting and preparing plants and other natural objects. Buds, flowers, roots, and leaves of the same plant are supposed to produce totally different results. The various parts of the plant have, according to the Chinese method, to be collected during certain periods, and at a certain stage of development, so that collecting goes on all the year round. The middle and southern provinces of China are very bare of woods, a circumstance which is probably due to the dense population, which causes all the suitable ground to be used for agriculture. From reports of travellers we gather, however, that the south-western provinces of China are, on the contrary, densely wooded. The mountainous islands of Formosa and Heinan are doubtless well wooded, the former possessing a great number of camphor trees, which furnish, next to Japan, one of the richest sources for the supply of camphor to our markets.

The careful manner in which the Chinese preserve their plants or herbs is evident from the fact that the dried flowers and leaves retain their natural colors in a remarkable degree. The reason of this exactitude may be due to the Chinese belief that the precise effect of various substances is mainly influenced by the manner of their application. For instance, a doctor would usually order medicine to be given either in powder or in pills, or dissolved, because he feels convinced that the effect produced would vary according to the state in which the medicine is exhibited.

In China a chemist will commence his career as an apprentice, and after having served for three years in shop and laboratory will begin his theoretical studies. This training seems to answer in a country where the pharmacist carries on his business more on a trading than on a scientific basis. The Chinese pharmacists form a very influential caste, and much respect and deference is shown to them by the people. For instance, the quarter at Canton where they chiefly reside has been named after them "Physic Street." This name would appear, however, to be only partially appropriate, as only wholesale dealers live there, and they have nothing to do with the dispensing of drugs to the public. The dress of the pharmacist is that of the well-to-do classes, consisting of a long cloak reaching down to the ankles, and a large cone-shaped straw hat, covered in summer with horsehair and with black velvet in winter.

The pharmacists, knowing that their profession is usually associated with the thoughtful and grave physiognomy of the learned, imitate those characteristics, and are found affecting a stoic calmness and adopting a patronizing demeanor when talking to the public. Comical are the gestures with which they seek to impress the uneducated with a sense of their mental superiority. The Pen-tsao, or Chinese pharmacopœia, is divided into fifty-two volumes, which are again subdivided into numerous parts and chapters; the work seems to treat with the whole creation, and thus affords the student a wide scope for work. The 1st and 2nd volumes describe the origin and growth of pharmacy, the 3rd volume deals with the effects of certain remedies. The 12th to 28th volumes contain a history of the vegetable world, these volumes being classified under eleven heads, which does not speak favorably for the work. The 38th volume is of special interest; in this nothing is discussed but antique furniture, apparatus, and clothes worn by druggists in both past and present times. In the 52nd volume anatomy is dealt with, especially that of those parts which are most likely to require medical treatment.

In Pekin, where hawkers and itinerant pedlars are numerous, we find in the streets the medicine cheap-jack and the quack doctor. These people are always surrounded by a crowd, and it is very comical to notice how a quack doctor puts some ointment on his finger and then daubs it under the noses of his audience who are squatting round him, and who without moving a muscle allow the wonderful medicine to have its effect upon them. The effect of rat poison is represented in a very realistic way by its vendors; they spread out on a piece of blue cloth on the floor their bottles, etc., and in front of these they place a number of dead rats.—*Pharmaceutical Journal.*

The Bicycle for Drug Stores.

The poetry of motion has found a new and modern illustration in the festive bicycle, which from the cumbrous, awkward and lumbering vehicle of a half decade ago has emerged into the light, beautiful, and universally serviceable agency of individual locomotion and transportation. The uses of a bicycle as a pleasure vehicle are now quite universally recognized by both sexes in all the nations. Its evolution in this direction will doubtless continue, but probably its most important function will be as the servant of traffic of all kinds within range of its strength and limitations. The "craze" is clearly less a passing fancy than a widespread popular discovery of an instrument of extraordinary utility, and as such the bicycle is no doubt destined to permanent popularity.

The trade in bicycles is now seeking avenues of distribution best adapted to its nature. Instead of a separate retail store the advantages of its association under the same roof with certain other branches of business have already been demonstrated. The path of distribution once formed will probably remain, and it is therefore highly important that the recognized advantages of the retail drug store be emphasized and fixed in the minds of the manufacturers and the purchasing public without delay. Many drug stores are, of course, not adapted to a department of this kind, but in nearly all the smaller cities and larger towns many of them are provided with superior facilities both for the sale and display of this popular vehicle, which bears a not distant relationship to the fascinating soda fountain and its votaries. By common consent the attractive drug store is the fitting abode of the beautiful fountain fruitful with profit to the druggist from its own service and from the army of patrons it attracts to the store. The reputation of the drug store may be similarly established for the graceful bicycle, which, by reason of its health-giving qualities, has an additional claim on the recognition of the pharmacist.

Great fortunes are being made in the industry at this time, and few articles are in such extensive demand at prices which afford a good profit to the retailer. It is by the prompt appropriation of new additions like these to the wants of human kind that the retail drug store may compensate for the loss of articles which for any reason have preferred to seek a business home elsewhere. The bicycle should clearly follow the soda fountain.—*Western Druggist.*

Arsenic or mercury may be made into pills, says Lang (*Mon. f. Bakt. Derm*), by employing a mass consisting of milk sugar, 2 or 3 parts, and lanolin, 1 part.

Mydrine is a name given to a mixture of ephedrine and homatropine. It appears as a white powder, soluble in water. It is employed in 10 per cent. aqueous solution.

Allen B. Wrisley's

CUCUMBER COMPLEXION TOILET SOAP

IS "PURE GOLO"

The virtues of Cucumber Juice for the Skin and Complexion have become *famous*. We challenge comparison with any fine milled, delicately perfumed, high grade soap in the market. It's **The Complexion Toilet Soap** of the world. Made on honor, full value, par excellence. Matchless for a clear, soft, skin beautifier. It is well worth 50 cents a cake, but can be sold at Retail for (¼) one-quarter of that price. Try it, try it, and be convinced.

Sold by the Wholesale Druggists in Canada.

MADE ONLY BY

ALLEN B. WRISLEY

479 to 485 5th Avenue,
CHICAGO.

Manufacturer of High Grade Toilet Soaps, Perfumes, and Glycerine.

N.B.—Prices and Samples to JOBBERS on application.

KENNEDY'S MAGIC CATARRH SNUFF

(REGISTERED)

A POSITIVE CURE FOR

CATARRH
COLD IN THE HEAD
CATARRHAL DEAFNESS
HEADACHE, Etc.

It is reliable, safe, and sure, giving instant relief in the most distressing cases.

PRICE, 25 CENTS.

Wholesale of Kerry, Watson & Co., Montreal. Lyman, Knox & Co., Montreal and Toronto.

And all leading Druggists.

GEO. H. CHANDLEE. H. C. CHANDLEE.

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FEARFULLY FATAL TO FILTHY FLIES!

CLEAN TO USE.

MARSHALL'S FLY CATCHER. PATENTED. WHEN COVERED PULL STRING BACK TO REMOVE FLIES, AND USE AGAIN. The Fly Paste for own use supplied in Tins at 2d. Manufactory, Henfield, Sussex.

Can be carried in the Pocket.

"THE ONLY REEL COMFORT."

MARSHALL'S Fly & Mosquito Catcher

IS NOT OFFENSIVE TO THE SIGHT.

Catches more Insects than Sticky Papers.

DOES NOT SPOIL BY KEEPING.

GOOD IN ANY CLIMATE,

Therefore specially suitable for Export.

Promptly fixes the pests, and rapidly clears a room of these carriers of disease and contagion.

Catches successive crops by drawing the String to and fro, and at the same time Killing the Insects, thus there is no lingering torture.

CANADIAN WHOLESALE DEPOT:

The LYMAN BROS. & CO., Limited,
TORONTO.

PISO'S CURE FOR CONSUMPTION. 25 CTS. The Best Cough Syrup. Tastes Good. Use in time. Sold by Druggists.

I presume we have used over one hundred bottles of Piso's Cure for Consumption in my family, and I am continually advising others to get it. Undoubtedly it is the

Best Cough Medicine

I ever used.—W. C. MILTENBERGER, Clarion, Pa., Dec. 29, 1894.———I sell Piso's Cure for Consumption, and never have any complaints.—E. SHOREY, Postmaster, Shorey, Kansas, Dec. 21st, 1894.

PISO'S CURE FOR CONSUMPTION. 25 CTS. The Best Cough Syrup. Tastes Good. Use in time. Sold by Druggists.

J. S. HAMILTON

PURE GRAPE BRANDY DISTILLER

Pelee Island

Distilled under Excise supervision.

"J. S. HAMILTON & CO."

COGNAC

In Quarter-Casks, Octanes, Half-Octanes, and Casks.

J. S. HAMILTON & CO.

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THE FINEST OF BEVERAGES

JOHN LABATT'S (LONDON) ALE AND STOUT

Received HIGHEST AWARD made on the continent at the WORLD'S FAIR CHICAGO, 1893, and

GOLD MEDAL AT THE MIDWINTER EXPOSITION, SAN FRANCISCO, CAL., 1894,

Surpassing all Canadian and United States competitors in every respect, and

EIGHT OTHER GOLD, SILVER, AND BRONZE MEDALS AT THE WORLD'S GREAT EXHIBITIONS.

GOES TO . The People you want

TO ALL . . The People you want

NONE BUT The People you want

The Druggists of Canada

The Canadian Druggist

Reaches them all ! !

The Canadian Druggist,

Toronto, Canada.

LePAGE'S

"Syrup Hypophos. Comp."

IMPROVED

TRADE PRICE { Per Winchester - $2.25 / Per Dozen—Small - 3.50 / Per Dozen—Large - 7.00

Also LePAGE'S "BEEF, IRON AND WINE."

Quality Guaranteed. Price Reasonable. Trade Solicited.

C. W. LePAGE & CO.,

59 BAY STREET, TORONTO.

Every Druggist Should Handle Our

DRUGGIST FAVORITE, 5c.

AND PATTI, 10c.

: : CIGARS : :

Send for Sample Order.

Fraser & Stirton,

LONDON, Ont.

Formulary.

EFFERVESCING CITRATE OF IRON.

Ronde gives the following in *Pharm. Wochenschrift* for producing a yellow, granular preparation :

Ferri ammonio-cit	ʒiss.
Sodii bicarb	ʒviiss.
Acidi citrici	ʒvj.
Pul. sacl., alb.	ʒxv.

Mix the dry powders. Separately dissolve ferri. am. cit. ʒiss. in aqua ʒv., and acid. citric. ʒiss. in S. V. R. ʒij. Mix, and make the powder into a paste with the mixture and as much S.V.R. as is required. Rub this paste through a suitable-sized sieve, and dry the granules.

—*Chemist and Druggist.*

TAR LIQUOR.

Jeannel gives the following formula for preparing a *liqueur de goudron* (tar liquor) :

Wood tar	25 parts
Sodium bicarbonate	22 parts
Water	1,000 parts

Macerate together at a moderate temperature for twenty-four hours and filter. —*National Druggist.*

IMPROVED FORMULA FOR CHLOROFORM OINTMENT.

Chloroform	10 parts
Hard paraffin	5 parts
Vaseline	85 parts

Melt the paraffin with a gentle heat ; when almost cold, add the chloroform gradually, and triturate rapidly in a mortar. The product should be preserved in a hermetically-sealed vessel.—(Crouzel) *L'Union Pharmaceutique.*

PENCILS FOR REMOVING GREASE SPOTS.

The *Pharmaceutische Centralhalle* gives the following :

Ox-gall	16 parts
Borax, powdered	8 parts
Magnesia	20 parts
Soap powder	50 parts

Rub well together, and then add sufficient green soap to make into a stiff paste. Roll out into pencils of a convenient size and set aside to dry. In use, the end of the pencil is dipped slightly into water and applied to the spot. After rubbing it in, wipe off with a moist sponge. —*National Druggist.*

BOUGIE MASS.

The *Revue de Thérapeutique* gives the following :

Cacao butter	4 parts
Gum arabic, in powder	2 parts

Mix carefully, and add, under constant stirring,

Glycerin	1 part
Distilled water	2 parts

If necessary, the amount of cacao butter may be increased.—*National Druggist.*

CASTOR OIL COMFITS.

A writer in a French medical journal suggests the manufacture of a castor oil comfit, which will greatly facilitate the administration of that very useful remedy to children. The process consists in cooking crude or unrefined sugar until it is on the point of candying, or crystallizing. This can be learned by the removal of a little from time to time, and letting a drop fall on a cold surface. When this point has been reached remove from the fire and stir in the oil, until a homogeneous mixture is obtained. The mass cast into sticks, or cut into lozenges, is put up in packages sufficient for one, two, or more doses, as required. It is claimed that the taste is similar to the well known "butter-scotch," and that the comfit acts as an effective laxative, or purge, as desired.

TAPEWORM PILLS.

La Medicine Moderne gives the following formula for a tapeworm pill, which it is said is very efficient :

Copper oxide	6 gm.
Calcium carbonate	2 gm.
Armenian bole	12 gm.
Glycerin	10 gm.

Mix and make into a mass. Divide into 120 pills. The directions are : "For the first week take two pills four times daily. The second week take three pills four times daily. At the end of fourteen days a heavy dose of castor oil will bring away the worm."—*National Druggist.*

FORMULÆ FOR OINTMENTS WITH ADEPS LANÆ.

Cooling Ointment.—Adeps lanæ, 20 parts ; rose water or lime water, 30 to 45 parts ; benzoin in fine powder or oxide of zinc, 10 parts.

Firm Paste for Eczema.—Oxide of zinc, 6 parts ; precipitated sulphur, 4 parts ; white fuller's earth, 2 parts ; adeps lanæ and benzoin, of each 14 parts.

Soft Paste for Eczema.—Oxide of zinc, French chalk, of each 2 parts ; olive oil and lime water, of each 6 parts ; adeps lanæ, 4 parts : tincture of benzoin, 1 part.

Ointment for Chilblains.—Camphor, 3 parts ; balsam of Peru, 1 part ; oil of sweet almonds, 16 parts ; adeps lanæ and rose water, of each 20 parts.

Cold Cream.—Borax, 2 parts ; liquid neutral soap, 1 part ; adeps lanæ, 20 parts; rose water, 180 parts ; tincture of benzoin, 1 part.

Ointment for Psoriasis.—Oil of caldec, 10 parts ; adeps lanæ, 20 parts ; zinc ointment, 30 parts ; solution of chromated lime, 40 parts.

Mercurial Ointment with Adeps Lanæ. —Mercury, 20 parts ; adeps lanæ, 25 parts ; benzoin in powder, 15 parts ; oil of bergamot, 1 part.

Unctuous Injection for Chronic Urethritis.—Silver nitrate, ¼ to 2½ parts ; oil of sweet almonds, 10 parts ; adeps lanæ, 40 parts ; distilled water, *q.s.*—*Med. Moderne—Pharmaceutical Journal.*

ACID CEMENT.

The following preparation is recommended for cementing glass, porcelain, or other vessels intended to hold corrosive acids :

Asbestos	2 parts.
Barium sulphate	3 "
Silicate of sodium	2 "

By mixing these ingredients a cement strong enough to resist the strongest nitric acid will be obtained. If hot acids are dealt with, the following mixture will be found to possess still more resistant powers :

Silicate of soda (50° Baumé.)	2 parts.
Fine sand	1 part.
Asbestos powder	1 part.

Both these cements take a few hours to set. If the cement is wanted to set at once, use silicate of potash instead of silicate of soda. This mixture will be instantly effective, and possesses the same power of resistance as the other. (*Journal de Pharm.*).—*Phar. Journal.*

CAOUTCHOUC CEMENT FOR INDIA-RUBBER SHOES.

[866] No. 1, caoutchouc, 10 parts ; chloroform, 280 parts. No. 2, caoutchouc, 10 parts ; brown resin, 4 parts ; thus, 2 parts ; oil of turpentine, 40 parts. Solution No. 1 is produced by simply leaving the caoutchouc standing in a bottle with the chloroform. For solution No. 2 melt the finely cut caoutchouc and the resin, add the thus, and dissolve the whole in the oil of turpentine. Mix both solutions.

CAOUTCHOUC CEMENT FOR CYCLE TYRES.

[867] Bisulphide of carbon, 160 parts ; gutta-percha, 20 parts : caoutchouc, 40 parts ; islinglass, 10 parts. This cement is dropped into the crevices after they have been properly cleaned. If the rent is very big, apply the cement in layers. Bind up the rubber tyre lightly with thread, let dry for twenty-four to thirty-six hours, cut off the thread, and remove the protuding cement with a sharp knife, which must previously have been dipped in water. (*Zietschrift*) — *Pharmaceutical Journal.*

HARNESS SOAP.

According to the way in which it will be applied, or the form in which it is brought on the market, harness soap is made in different ways. The basis should be some pure, hard soap, to which appropriate additions are made for the purpose of oiling and blackening the harness while cleaning it (and softening the soap at the same time, if it is to be sold in boxes or jars instead of in the form of bars). The soap should be pure—that is to say, not contain filling, and especially no carbonate of soda. Bone black or lampblack is used for the black color, and an addition of harness oil, cod liver oil, or neatsfoot oil is made for the object of oiling the leather. Glycerine or molasses may be added to make the color more readily taken up by the leather. In some of the various formulas in use there figure also small additions of tar, carbonate of ammonia, and tannin solution, and especially also potash soap, which softens the product, and, of course, water when the soap is sold in closed receptacles. Where no potash soap is employed, it is advisable to use for the basis a soap containing some cocoanut oil, also some rosin if desired. No more lampblack should be used than will answer the purpose, 6 lbs. being generally sufficient for 1,000 lbs. of soap. The other ingredients must be gauged by the required consistency of the soap, etc. —*American Soap Journal.*

Photographic Notes

Direct Positives Produced in the Camera.—In the *Phot.-Wochenblatt*, Herr Franz Kogelmann suggests the following modification of the Obernetter process of producing positives directly from nature in the camera. The plate, which should have been exposed for a much longer time than usual, is developed with ferrous oxalate until the high lights, if the plate be viewed from the back, appear quite black. The plate is then washed in the dark and placed in the following bath:

Bichromate of potash	5 parts
Alum	75 parts
Nitric acid c.p	5 parts
Sulphuric acid c.p	10 parts
Distilled water	800 parts

This solution should be free from any trace of chloride. The plate is then thoroughly washed and developed in bright daylight with any good developer. —*Pharmaceutical Journal.*

Matt varnish is more used now that "photo-faking" has become quite a fine art. A formula I have used for years is:

Sandarac	1 oz.
Mastic	1½ dr.
Ether	10 dr.

Dissolve, and add—

Benzine	4 dr.

Sandarac is only slightly soluble in benzine, so that in using matt varnish the ether evaporates more rapidly than the benzine, and the sandarac is precipitated in a finely-divided state when a certain point is reached. For printing negatives with too harsh contrasts this varnish is required green-tinted. Malachite green, dissolved in spirit in the proportion of 10 grs. to the ounce, is added a few drops at a time until the required tint is obtained.—*Chemist and Druggist.*

Negative Marking Ink.—The *Photographische Chronik* publishes the following for putting titles on negatives:

(1)

Water	4 oz.
Sugar	7 dr.
Glycerine	3 dr.

(2)

Alcohol	4 oz.
Nitrate of mercury	5 dr.
Chloride	2½ dr.

The two solutions are mixed and the title written on a piece of paper. When the writing is dry it is transferred to the film of the negative by rubbing the back of the paper with a paper knife or the finger nail.—*American Journal of Photography.*

Ten Per Cent. Photographic Solutions.—Dr. A. W. Bracklock considers that the recommendation to use measures graduated to fluid grains in preparing these solutions seems particularly absurd. "What is wanted is a method of making solutions so that a given bulk shall contain a certain weight, because much time and trouble is saved by substituting measuring for weighing. This purpose is accomplished by making the solutions of such strength that ten minims in bulk shall contain one grain in weight. As the ounce avoirdupois contains 437·5 grains, one ounce must be dissolved in sufficient water to measure 4,375 minims, which is nine fluid ounces and 55 minims; probably nine fluid ounces and one drachm would be accurate enough, being only five minims too much."—*Photography.*

Developer Stains on Negatives.—There is, we believe, a growing desire with many photographers to revert to the kind of negative having the slight stain producible by pyro development, either without sulphite or with a very small portion of that agent, such as was frequent a few years back. We have heard it stated by many operators that the "pretty" negatives yielded by the new developers are so deceptive in their printing qualities that they are tempted to go back to negatives of pyro-like quality on that very account.

This implies that, after all, a slight yellow stain is no disadvantage, but rather the reverse in some cases.—*British Journal.*

A Stain Reducer.—One of the latest claimants to favor amongst photographers is thio-carbamid, or thiourea, $C_4H_4N_2S$, and, as it is very efficient for removing the stains of pyro from the films of negatives, the fingers, clothes, etc., it should be recommended, or may be made up in a solution.

Thio-carbamid	30 grains
Chrome alum	30 grains
Citric acid	40 grains
Distilled water, to make	10 ounces

The negative may be soaked in this for ten minutes, and then well washed, or the hands or fingers well rubbed with a coarse rag dipped in the solution.

To Recover Fogged Plates.—Solution as follows:

Chromic acid	60 grains
Bromide of potassium	60 grains
Water	10 ounces

and immerse the plates for five minutes: afterward wash very thoroughly, and rear up to dry.—*American Journal of Photography.*

Mountants.—The manufacture of such preparations as mountants is one of the best paying parts of the photographic trade. I prefer to use a mountant made by myself—and why should I not get my customers to try it? So I append, for the benefit of other retail chemists, a few notes on formulæ which I have tried and not found wanting. A good mountant for all purposes, and one which keeps well, is made as follows:

Powdered starch	2 oz.
Gelatine	½ oz.
Spirit	2 oz.
Carbolic acid	½ oz.
Water	12 oz.

Heat the starch with 10 oz. of the water until the granules are completely tumified and a translucent jelly is formed; then add the gelatine, previously dissolved in the remaining 2 oz. of water; and, lastly, the spirit and carbolic acid.—*Chemist and Druggist.*

Veterinary Medicine and the Pharmacist.

By C. A. Serre, B.Sc.

Legitimate competition and cut-rate stores often render pharmaceutical knowledge a matter of secondary pecuniary importance, thereby forcing the druggist into business activities which do not form a part of his education.

The druggist of to-day is an industrial encyclopædia: he dispenses medicines, hardware, cutlery, bristles, perfumes, cigars, flowers, stationery, sponges, drinks, groceries, garden-seeds, lawn-mowers, dyes, fly-paper, etc.

As these trades are not taught in college, they must be acquired by time and experience, both of which are costly factors, and often the cause of such serious pecuniary loss as to incapacitate the pharmacist for the practice of his legitimate profession.

It seems strange that men who are daily compounding mixtures for the prevention and cure of disease, whose qualifications are of particular value in introducing them to the technicalities of the sister branch of veterinary medication, should prefer to engage in the sale of these motley miscellanies.

Next to man, there is no living creature of so much use and value as the horse. No object is more worthy of appeal to the ambitious and studious pharmacist, and none presents a more inviting opportunity whereby he may build himself a profitable connection, render incalculable services in his section, and above all, by his knowledge, gradually do away with the so-called "horse doctors" or arch-torturers who are unfortunately allowed to practise their black art in broad daylight.

The side line herein recommended would make of the pharmacist an invaluable assistant to the veterinary surgeon, as well as to the friends of all lovers of dumb creation—a source of profit to himself and utility to all.

It is a simple thing for the pharmacist to have his private formulas or regular veterinary medicaments supplied by the manufacturing houses in the same attractive and finished style as he can obtain pills, capsules, or fluids, reserving a special case for this purpose, and thereby rendering him ever ready to help and supply knowledge when, as is often the case, veterinary aid is not available.

By slight application in this direction the pharmacist may soon become of the utmost utility in a branch which is daily crying for aid from quarters which can supply it profitably, intelligently, and humanely.—*Bulletin of Pharmacy.*

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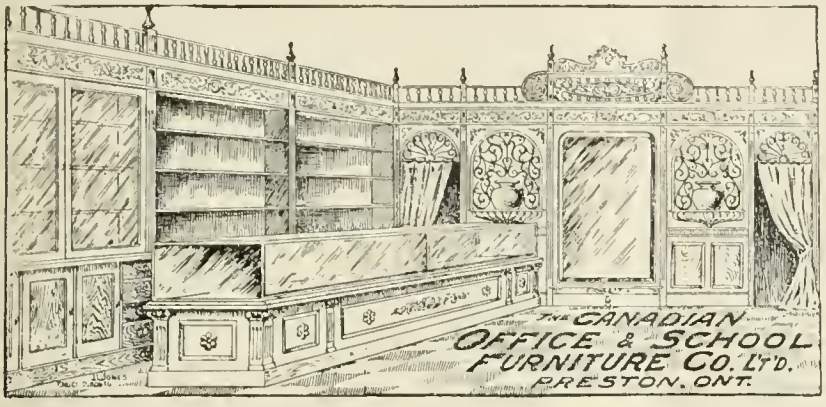

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The Ethical Aspects of the Pharmacy of To-day.*

By Wm Stephenson, M.D.

Under the prospect of a new edition of the "British Pharmacopœia," the professional mind is at present being directed to pharmacy. There are some aspects of the subject which, although connected only indirectly with the Pharmacopœia, are yet well worthy of consideration. Recent developments are tending not only to modify the methods of prescribing, but also to affect the ethical relations of medical men to the pharmaceutical world.

Pharmacy, though now regulated by a distinct corporation, with its own organization, protected by acts of parliament, is still a branch of the healing art. Home rule has been granted, and not independence. Between prescriber and dispenser there is a mutual dependence and mutual obligations over which an ethical, if not legislative, power should preside.

Though now distinct from medicine as a profession, pharmacy has developed a professional status for itself, safeguarded by examinations that demand considerable scientific education and practical training. This position, however, requires strengthening and purification. As a profession pharmacy has, in its business relations, to contend with gross influences, which, for the sake of gain, are engendering practices inconsistent with all professional character. A keen commercial and speculative spirit is becoming rampant; it threatens to degrade pharmacy, and is affecting seriously the interests of those who are devoting themselves to the work in a proper professional spirit.

The enterprise shown of late by pharmaceutical chemists is to be commended so long as its aim is the improvement of pharmacy by scientific and professional means. When, however, it becomes associated with the craving for gain, and endeavors to satisfy it by the introduction of novelties that are turned into proprietary interests, when it is promoted by self-laudation and misleading statements in persistent and obtrusive advertisements, then the professional spirit is crushed. Under such circumstances it behooves medical men to be on guard, lest they are enticed into abetting actions that are opposed to the treasured principles and traditions of their profession.

One marked feature of the present day is the invasion by wholesale houses of the province of the dispensing chemists. Machinery is displacing hand labor, wholesale manufacture the home-made article. From the wholesale manufacturer the druggist must obtain much of his stock materials, and on his knowledge, experience, and character we must rely for the selection as to quality; but, in dispensing, the preference should always be given to the freshly home-made article over the factory compounds turned out in hundreds of gross, and that may be months and years old before they are used. In the movement the spirit of personal aggrandizement can be readily detected. By a mere coating of varnish, or the use of a registered name, it is turning even the formulæ of the Pharmacopœia into proprietary preparations. If we prescribe for a patient any of the pills of the British Pharmacopœia, or of a well-known formula, have we any right, is it becoming, that we should require that they be those of one particular maker? Yet this is what the wholesale houses ask us to do, and is done by many practitioners. Would it not be more reasonable to require that the ingredients be those of certain makers than that the desired peculiarity should consist solely in the excipient or the coating of the pill? Chemists are now often compelled to keep in stock some half-dozen makes of an article which they themselves could freshly and as skilfully compound—all to suit varying whims and bring grist to particular mills. There are many remedies where it may be desirable to name the maker preferred, but then only as a recommendation. These are the proper factory or laboratory preparations demanding special skill and facilities; but when the prescription is of the nature of a pill, a syrup, or a mixture that, the formula being known, can be compounded by any qualified druggist, it is unbecoming to restrict the dispensing in any way.

In the present day the art of combining remedies and of prescription writing is imperfectly acquired and little studied. Ignorance is the fruitful soil of gullibility; hence the large crop of non-official compounds of remedies, combined in unrevealed proportions and by secret processes.

The objectionable character of proprietary articles is not removed by a professed publication of the formula. Any value they possess must either be a secret, or, if the claim be skill and facilities in compounding, in most cases it is unsupported by such intrinsic value as to merit "exclusive dealing."

The Pharmacopœia Committee will have some difficulty in preparing the new edition. Can it be expected to keep pace with the "new pharmacy," with its tablets, tabloids, tabellæ, cachets, capsules, jelloids, hypoderms, perles, parvules, palatinoids, bipalatinoids, and soloids? There is good in the "new pharmacy," but this fresh development is showing a redundancy of action, and is invaded by and proving to be a favorable medium for the cultivation of the germs of pure personal aggrandizement. There are many instances where the capsule or the tabloid is a well-adapted form for the administration of a remedy, but there is a danger, under the continuous pressure of puffs and samples, of the system being carried too far. The disciples of the "new pharmacy" are shouting "Eureka!" and are discarding draught and mixture.

An important question, however, has been raised, whether many drugs will act as efficiently when given in the dry and concentrated as in the fluid form, especially when freshly prepared. It may be difficult to prove the point as regards many medicines, but the special form in which a remedy is administered is not unimportant. It is known that the infusion of digitalis is at times more serviceable than the tincture; caffeine does not give the same results as freshly prepared coffee; and no one surely would prefer a tea tabloid to a cup of that beverage. For convenience's sake, or to make the dose more palatable, we are to discard as of no importance the corrective and the adjuvant in our prescriptions.

Another marked feature of the pharmaceutical world of to-day is the extensive use of advertisements. In business this custom is legitimate and beneficial to the public, so long as it is conducted in a fair, truthful, and business-like manner. But it is reprehensible and unbecoming when it assumes the aggressive form against rivals, and makes use of unwarranted statements dressed up in quasi-scientific garb, the truth that is half untruth—all calculated, if not intended, to deceive the public. It is to be regretted that pharmaceutical chemists are degenerating in the style of their advertisements.

The evil effect of the keen commercial speculation can be readily traced in the changes which the advertising mania is producing in infant and invalid feeding. Articles such as condensed milk, infants' food, essences and extracts of meat, all useful in their proper place, have been seized upon and made to serve the purposes of the insatiable greed of gain. Their proper use does not create sufficient demand to meet the excessive production arising out of the large sums invested in their manufacture. Hence that demand must be artificially increased. The speculative spirit conjures with the latest scientific terms and ideas, it seeks favor by fallacious quotations of chemical analysis and physiological experiment, and makes unwarranted assertions as to medical experience and opinions. Malt has "come as a boon and a blessing," not to babes alone, but to speculators too. Of the making of meat extracts there is no end. The fresh milk of the cow is discredited in every way. It must be sterilized, peptonized, "humanized," before it is fit for use. Freshly-prepared home-made articles are useless; invalids should be fed on factory-prepared meats and peptones, months and years old; and are not medical men all the country over aiding in the production of the artificial demand necessary to earn dividends to the joint stock companies limited, accepting chemical analysis as a test of digestibility, and thoroughly trusting in the permanency of the artificially-peptonized state of foods, and the nutritive quality of desiccated and pulverized albumin and fibrin?

It is evident that there is much in the ethical aspects of the pharmacy of to-day

* Abstract of a paper read before the Aberdeen, Banff, and Kincardine Branch of the British Medical Association

that concerns medical men, and has important bearings on the practice of medicine. Pharmacy is undergoing considerable change, but in the midst of the healthy development there is a growth which, in excessive production and the tendency to invade all surrounding interests, is verily of the nature of a cancer. It is destroying the professional spirit in pharmacy. By means savoring of chicanery and advertisements, emulating in a refined manner the example of quacks, it is deceiving the public, and it has the effrontery to solicit the aid of medical men by asking them to be the touting agents for its goods.—*Pharmaceutical Journal.*

How to Succeed though a Druggist.*

By S. C. Parsons, Savannah, Ga.

The depression in business for the past two years has brought many a heretofore prosperous "old line" druggist face to face with a stern problem, that of stationary or decreasing sales, owing to the growing competition of the numerous department stores and the increasing tendency of physicians to furnish their own medicines.

It is clear that we cannot largely increase the sales of present lines without offering special inducements to meet those of our competitors, for we have pushed those lines to the best of our ability. To make no change is to court commercial death, for the laws of business, like the laws of nature, are without mercy and without remorse.

In nearly every city the retail druggists are protesting bitterly against the cutters and department stores, which advertise and sell well-known staples at prices which would mean starvation for the smaller dealers.

Of course, it is undeniably hard that these merchants should see their trade thus drawn away and profits dwindling day by day, but they might just as well try to keep back the ocean's tide with a broom as to try to remedy the evil by passing resolutions.

NEW CUSTOMS.

The duty of every druggist is to try and be in touch with the peculiarities of his own people; it is well enough to desire to adopt the customs of France, Germany, England, or China, if you live there; but if you desire to succeed, you must go with the current instead of against it. Readjust your business, add new departments, select goods whose retail merits are the first consideration, become headquarters for all goods in your line, save money by buying in quantities whatever can be disposed of inside a reasonable length of time, so that the last article will not be less desirable when sold than the first; increase your stock so as to be ready for all demands; patronize your local jobber, but ever remember that he is human, so don't expect him to supply your shorts and one-twelfth of a dozen the same as those buying in larger quantities.

In your chemical department purchase the best, for it is none too good. Don't be too anxious to get in on the ground floor with some inferior extracts, or try to educate the physicians about the National Formulary, for seeming unwillingness on our part to furnish proprietary articles simply increases the tendency for them to furnish their own medicines.

PROMPT PROFITS.

We do not forget those who supplied us with ready sellers, as a prompt profit makes them popular, for such wares bring the people in. What a world of mercantile success in those words, "bring the people in;" they contain the secret of every successful business. Personal popularity, handsome store, advantageous location, and competent clerks will accomplish a great deal, but,if you have ever dreamed of making a success of your business,there is nothing that equals printers' ink to "bring them in."

The world moves and you must move with it. Don't always wait until the demand has been created before you lay in your supply, as your progressive neighbor has anticipated the same, and caught the customers for the first calls. So if you want to succeed, you are obliged to take chances and not lapse into a sort of a machine and simply sell what's called for, until your stock gradually dwindles to one-twelfth of a dozen or none; for your customers will slowly drift away from you to the enterprising firms.

CARRYING SMALL STOCKS.

I have had druggists tell me that they carried very small stocks of various lines, as they had so few or no calls for certain classes of goods, and yet when in Rome (Ga.) I saw a man purchasing about $8 worth of ordinary articles that could not be obtained at home, thirty-five miles distant.

How to bring the people in should be our study. Some say have a directory, a free telephone, keep stamps, furnish lounging room, and entertain worn out politicians and the gossips of the neighborhood, as that will make you popular; and anything you do not have in stock you can order, and thereby avoid taking any risk of your money being tied up in slow or dead stock.

SPEND IN ADVERTISING.

Some say put in a full line of nonsecrets or something you know all about, and if you have any surplus money spend it in advertising your own preparations, and don't waste your time in recommending anything you do not make yourself. The most economical plan I have seen in that line was to have three sizes of blank cartons and paste the different labels for the various medicines on the cartons and request all manufacturers who furnish counter wrappers, almanacs, and pamphlets,to add, "also agents for Dr. Blank's preparations."

Some say buy the agency for a brand of candy or proprietary medicine, and in that manner keep your name always before the public.

THE UP-TO DATE MAN.

The hustler and up-to-date man says he has no time to make everything or to talk about anything but business, as his mind is continually occupied in studying how to please and cater to the people and keep his name constantly before the public. He believes in expending a certain amount of the gross receipts in printers' ink, for people require to be constantly reminded of your being in business, and invited to call, as you are desirous of receiving their patronage.

It is evident that as there are fewer merchants at present to the population than there were ten years ago, in consequence of goods being handled on smaller margins, the logic of the present situation is that those who were too blind to see the changing conditions of trade, or unable,or unwilling to adapt themselves to the same, have been simply crowded out.

NO MAN SO WELL KNOWN.

It is absolute folly to harbor a moment the idea that "every one knows me," or that you "control a certain trade," as we are to the public nothing more than an ordinary nine-day wonder, out of sight, soon forgotten. Therefore, if we desire business, we must constantly extend an open invitation, and unless we go from house to house and solicit patronage, which, of course, allows us no time to attend to our business, there is nothing left but to avail ourselves of printers' ink.

We must look upon advertising as a necessary expense, like rent, light, or fuel; not expect success without persistent use of printers' ink, either in counter wrappers, folders, cards, or the newspaper, which surpasses all other forms of advertising as a medium to bring them in, when we must meet them at the door and demonstrate the fact that we have the stock, things that are called for, and things that are not called for in new lines, so that we will be enabled to prove that we possess equally as much push, enterprise, and business capacity as any other honorable calling. Let us turn over a new leaf.—*American Druggist.*

* A paper read at a meeting of the Georgia Pharmaceutical Association.

Lysolum Bohemicum.

Under this name a new preparation of tar has been brought into the market by a firm in Bohemia; it is a dark brown liquid of agreeable odor, and will mix in any proportion with ordinary or distilled water. The solution is permanently clear, and of a yellow color, which darkens after a time without the liquid becoming turbid. The solution does not affect the hands, instruments, clothing, etc. To disinfect wounds a 1 to 2 per cent. solution is used; for disinfecting instruments a solution of 0.2 per cent. will be found sufficient.—*Pharm. Cent.*

4 and 8 oz. Toilet Water.

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NEW PERFUMES:

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CANADIAN DRUGGIST PRICES CURRENT

Corrected to July 10th, 1895.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

Alcohol, gal	$4 37	$4 65
Methyl	1 90	2 00
Allspice, lb	13	15
Powdered, lb	15	17
Aloin, oz	40	45
Anodyne, Hoffman's bot., lbs	50	55
Arrowroot, Bermuda, lb	50	55
St. Vincent, lb	15	18
Balsam, Fir, lb	40	45
Copaiba, lb	65	75
Peru, lb	3 75	4 00
Tolu, can or less, lb	65	75
Bark, Barberry, lb	22	25
Bayberry, lb	15	18
Buckthorn, lb	15	17
Canella, lb	15	17
Cascara, Sagrada	25	30
Cascarilla, select, lb	18	20
Cassia, in mats, lb	18	20
Cinchona, red, lb	60	65
Powdered, lb	65	70
Yellow, lb	35	40
Pale, lb	40	45
Elm, selected, lb	18	20
Ground, lb	17	20
Powdered, lb	20	28
Hemlock, crushed, lb	18	20
Oak, white, crushed lb	15	17
Orange peel, bitter, lb	15	16
Prickly ash, lb	35	40
Sassafras, lb	15	16
Soap (quillaya), lb	13	15
Wild cherry, lb	13	15
Beans, Calabar, lb	45	50
Tonka, lb	1 50	2 75
Vanilla, lb	6 00	7 50
Berries, Cubeb, sifted, lb	30	35
powdered, lb	35	40
Juniper, lb	7	10
Ground, lb	12	14
Prickly ash, lb	40	45
Buds, Balm of Gilead, lb	55	60
Cassia, lb	25	30
Butter, Cacao, lb	75	80
Camphor, lb	70	75
Cantharides, Russian, lb	1 40	1 50
Powdered, lb	1 50	1 60
Capsicum, lb	25	30
Powdered, lb	$ 30	35
Carbon, Bisulphide, lb	17	18
Carmine, No. 40, oz	40	50
Castor, Fibre, lb	20 00	20 00
Chalk, French, powdered, lb	10	12
Precip., see Calcium, lb	10	12
Prepared, lb	5	6
Charcoal, Animal, powd., lb	4	5
Willow, powdered, lb	20	25
Clove, lb	16	17
Powdered, lb	17	18
Cochineal, S.G., lb	40	45
Collodion, lb	75	80
Cantharidal, lb	2 50	2 75
Confection, Senna, lb	40	45
Creosote, Wood, lb	2 00	2 50
Cuttlefish Bone, lb	25	30
Dextrine, lb	10	12
Dover's Powder, lb	1 50	1 60
Ergot, Spanish, lb	75	80
Powdered, lb	90	1 00
Ergotin, Keith's, oz	2 00	2 10
Extract, Logwood, bulk, lb	13	14
Pounds, lb	14	17
Flowers, Arnica, lb	15	20
Calendula, lb	55	60
Chamomile, Roman, lb	30	35
German, lb	40	45
Elder, lb	20	22
Lavender, lb	12	15
Rose, red, French, lb	1 60	2 00
Rosemary, lb	25	30
Saffron, American, lb	65	70
Spanish, Val'a, oz	1 00	1 25
Gelatine, Cooper's, lb	75	80
French, white, lb	35	40
Glycerine, lb	17	18
Guarana	3 00	3 25
Powdered, lb	3 25	3 50
Gum Aloes, Cape, lb	18	20
Barbadoes, lb	30	50
Socotrine, lb	65	70
Asafœtida, lb	40	45
Arabic, 1st, lb	65	70
Powdered, lb	75	85
Sifted sorts, lb	40	45
Sorts, lb	25	30
Benzoin, lb	50	1 00
Catechu, Black, lb	9	20
Gamboge, powdered, lb	1 20	1 25
Guaiac, lb	50	1 00
Powdered, lb	70	75
Kino, true, lb	2 00	2 25
Myrrh, lb	$ 45	$ 48
Powdered, lb	55	60
Opium, lb	4 00	4 25
Powdered, lb	5 75	6 00
Scammony, pure Resin, lb	12 80	13 00
Shellac, lb	45	48
Bleached, lb	45	50
Spruce, true, lb	30	35
Tragacanth, flake, 1st, lb	75	80
Powdered, lb	1 00	1 10
Sorts, lb	45	65
Thus, lb	8	10
Herb, Althea, lb	27	30
Bitterwort, lb	27	30
Burdock, lb	16	18
Boneset, ozs, lb	15	17
Catnip, ozs, lb	17	20
Chiretta, lb	25	30
Coltsfoot, lb	20	38
Feverfew, ozs, lb	53	55
Grindelia robusta, lb	45	50
Horehound, ozs., lb	17	20
Jaborandi, lb	45	50
Lemon Balm, lb	38	40
Liverwort, German, lb	38	40
Lobelia, ozs, lb	15	20
Motherwort, ozs., lb	20	22
Mullein, German, lb	17	20
Pennyroyal, ozs., lb	18	20
Peppermint, ozs., lb	21	22
Rue, ozs., lb	30	35
Sage, ozs., lb	18	20
Spearmint, lb	21	25
Thyme, ozs., lb	18	20
Tansy, ozs., lb	15	18
Wormwood, oz	20	22
Yerba Santa, lb	38	44
Honey, lb	13	15
Hops, fresh, lb	20	25
Indigo, Madras, lb	75	80
Insect Powder, lb	25	28
Isinglass, Brazil, lb	2 00	2 10
Russian, true, lb	6 00	6 50
Leaf, Aconite, lb	25	30
Bay, lb	18	20
Belladonna, lb	25	30
Buchu, long, lb	50	55
Short, lb	20	22
Coca, lb	35	40
Digitalis, lb	15	20
Eucalyptus, lb	18	20
Hyoscyamus	20	25
Matico, lb	70	75

Senna, Alexandria, lb	$ 25	$ 30
Tinnevelly, lb	15	25
Stramonium, lb	20	25
Uva Ursi, lb	15	18
LEECHES, Swedish, doz	1 00	1 10
LICORICE, Solazzi	45	50
Pignatelli	35	40
Grasso	30	35
Y & S—Sticks, 6 to 1 lb., per lb.	27	30
" Purity, 100 sticks in box	75	75
" Purity, 200 sticks in box	1 50	1 50
" Acme Pellets, 5 lb. tins	2 00	2 00
" Lozenges, 5 lb. tins	1 50	1 75
" Tar, Licorice, and Tolu, 5 lb. tins	2 00	2 00
LUPULIN, oz	30	35
LYCOPODIUM, lb	70	80
MACE, lb	1 20	1 25
MANNA, lb	1 60	1 75
Moss, Iceland, lb	9	10
Irish, lb	9	10
MUSK, Tonquin, oz	46 00	50 00
NUTGALLS, lb	21	25
Powdered, lb	25	30
NUTMEGS, lb	1 00	1 10
NUX VOMICA, lb	10	12
Powdered, lb	25	27
OAKUM, lb	12	15
OINTMENT, Merc., lb. ½ and ½	70	75
Citrine, lb	45	50
PARALDEHYDE, oz	15	18
PEPPER, black, lb	12	13
Powdered, lb	15	16
PITCH, black, lb	3	4
Bergundy, true, lb	10	12
PLASTER, Calcined, bbl. cash	2 25	3 25
Adhesive, yd	12	13
Belladonna, lb	65	70
Galbanum Comp., lb	80	85
Lead, lb	25	30
POPPY HEADS, per 100	1 00	1 10
ROSIN, Common, lb	2½	3
White, lb	3½	4
RESORCIN, white, oz	25	30
ROCHELLE SALT, lb	25	28
ROOT, Aconite, lb	22	25
Althea, cut, lb	30	35
Belladonna, lb	25	30
Blood, lb	15	16
Bitter, lb	27	30
Blackberry, lb	15	18
Burdock, crushed, lb	18	20
Calamus, sliced, white, lb	20	25
Canada Snake, lb	30	35
Cohosh, black, lb	15	20
Colchicum, lb	40	45
Columbo, lb	20	22
Powdered, lb	25	30
Coltsfoot, lb	38	40
Comfrey, crushed, lb	20	25
Curcuma, p owdered, lb	13	14
Dandelion, lb	15	18
Elecampane, lb	15	20
Galangal, lb	15	18
Gelsemium, lb	22	25
Gentian or Genitan, lb	9	10
Ground, lb	10	12
Powdered, lb	13	15
Ginger, African, lb	18	20
Po., lb	20	22
Jamaica, blchd., lb	27	30
Po., lb	30	35
Ginseng, lb	3 00	3 25
Golden Seal, lb	75	80
Gold Thread, lb	90	95
Hellebore, white, powd., lb	12	15
Indian Hemp	18	20
Ipecac, lb	1 30	1 50
Powdered, lb	1 60	1 70
Jalap, lb	55	60
Powdered, lb	60	65
Kava Kava, lb	40	90
Licorice, lb	12	15
Powdered, lb	13	15
Mandrake, lb	13	18
Masterwort, lb	16	40
Orris, Florentine, lb	30	35
Powdered, lb	40	45
Pareira Brava, true, lb	40	45
Pink, lb	40	45
Parsley, lb	30	35
Pleurisy, lb	20	25
Poke, lb	15	18
Queen of the Meadow, lb	$ 18	$ 20
Rhatany, lb	20	30
Rhubarb, lb	75	2 50
Sarsaparilla, Hond, lb	40	45
Cut, lb	50	55
Senega, lb	55	65
Squill, lb	13	15
Stillingia, lb	22	25
Powdered, lb	25	27
Unicorn, lb	38	40
Valerian, English, lb. true	20	25
Virginia, Snake, lb	40	45
Yellow Dock, lb	15	18
RUM, Bay, gal	2 50	2 75
Essence, lb	3 00	3 25
SACCHARIN, oz	1 25	1 50
SEED, Anise, Italian, sifted, lb	13	15
Star, lb	35	40
Burdock, lb	30	35
Canary, bag or less, lb	5	6
Caraway, lb	10	13
Cardamom, lb	1 25	1 50
Celery	30	35
Colchicum	50	60
Coriander, lb	10	12
Cumin, lb	15	20
Fennel, lb	15	17
Fenugreek, powdered, lb	7	9
Flax, cleaned, lb	3½	4
Ground, lb	4	5
Hemp, lb	5	6
Mustard, white, lb	11	12
Powdered, lb	15	20
Pumpkin	25	30
Quince, lb	65	70
Rape, lb	8	9
Strophanthus, oz	50	55
Worm, lb	22	25
SEIDLITZ MIXTURE, lb	25	30
SOAP, Castile, Mottled, pure, lb	10	12
White, Conti's, lb	15	16
Powdered, lb	25	35
Green (Sapo Viridis), lb	15	25
SPERMACETI, lb	55	60
TURPENTINE, Chian, oz	75	80
Venice, lb	10	12
WAX, White, lb	50	75
Yellow	40	45
WOOD, Guaiac, rasped	5	6
Quassia chips, lb	10	12
Red Saunders, ground, lb	5	6
Santal, ground, lb	5	6

CHEMICALS.

ACID, Acetic, lb	12	13
Glacial, lb	45	50
Benzoic, English, oz	20	25
German, oz	10	12
Boracic, lb	13	14
Carbolic Crystals, lb	25	30
Calvert's No. 1, lb	2 10	2 15
No. 2, lb	1 35	1 40
Citric, lb	45	50
Gallic, oz	10	12
Hydrobromic, diluted, lb	30	35
Hydrocyanic, diluted, oz. bottles doz	1 50	1 60
Lactic, concentrated, oz	22	25
Muriatic, lb	3	5
Chem, pure, lb	18	20
Nitric, lb	10½	13
Chem. pure, lb	25	30
Oleic, purified, lb	75	80
Oxalic, lb	12	13
Phosphoric, glacial, lb	1 00	1 10
Dilute, lb	13	17
Pyrogallic, oz	35	38
Salicylic, white, lb	1 00	1 10
Sulphuric, carboy, lb	2½	2¾
Bottles, lb	5	6
Chem. pure, lb	18	20
Tannic, lb	80	85
Tartaric, powdered, lb	30	32
ACETANILID, lb	80	85
ACONITINE, grain	4	5
ALUM, cryst., lb	1¾	3
Powdered, lb	3	4
AMMONIA, Liquor, lb., .880	8½	10
AMMONIUM, Bromide, lb	80	85
Carbonate, lb	14	15
Iodide, oz	35	40
Nitrate, crystals, lb	40	45
Muriate, lb	12	16
Valerianate, oz	$ 55	$ 60
AMYL, Nitrite, oz	16	18
ANTINERVIN, oz	85	00
ANTIKAMNIA	1 25	1 30
ANTIPYRIN, oz	1 00	1 10
ARISTOL, oz	1 85	2 00
ARSENIC, Donovan's sol., lb	25	30
Fowler's sol., lb	10	13
Iodide, oz	50	55
White, lb	6	7
ATROPINE, Sulp. in ½ ozs. 80c., oz	6 00	6 25
BISMUTH, Ammonia-citrate, oz	35	40
Iodide, oz	50	55
Salicylate, oz	25	30
Subcarbonate, lb	2 25	2 40
Subnitrate, lb	1 75	1 80
BORAX, lb	7	8
Powdered, lb	8	9
BROMINE, oz	8	13
CADMIUM, Bromide, oz	20	25
Iodide, oz	45	50
CAFFEINE, oz	60	65
Citrate, oz	60	65
CALCIUM, Hypophosphite, lb	1 50	1 60
Iodide, oz	95	1 00
Phosphate, precip., lb	35	38
Sulphide, oz	5	6
CERIUM, Oxalate, oz	10	12
CHINOIDINE, oz	15	18
CHLORAL, Hydrate, lb	1 25	1 30
Croton, oz	75	80
CHLOROFORM, lb	60	1 90
CINCHONINE, sulphate, oz	25	30
CINCHONIDINE, Sulph., oz	15	20
COCAINE, Mur., oz	6 50	8 00
CODEIA, ⅛ oz	80	90
COLLODION, lb	65	70
COPPER, Sulph., (Blue Vitriol) lb.	6	7
Iodide, oz	65	70
COPPERAS, lb	1	3
DIURETIN, oz	1 60	1 65
ETHER, Acetic, lb	75	80
Sulphuric, lb	40	50
EXALGINE, oz	1 00	1 10
HYOSCYAMINE, Sulp., crystals, gr.	25	30
IODINE, lb	4 75	5 50
IODOFORM, lb	6 00	7 00
IODOL, oz	1 40	1 50
IRON, by Hydrogen	80	85
Carbonate, Precip., lb	15	16
Sacch., lb	30	35
Chloride, lb	45	55
Sol., lb	13	16
Citrate, U.S.P., lb	90	1 00
And Ammon., lb	70	75
And Quinine, lb	1 50	3 00
Quin. and Stry., oz	18	30
And Strychnine, oz	13	15
Dialyzed, Solution, lb	50	55
Ferrocyonide, lb	55	60
Hypophosphites, oz	25	30
Iodide, oz	40	45
Syrup, lb	40	45
Lactate, oz	5	6
Pernitrate, solution, lb	15	16
Phosphate scales, lb	1 25	1 30
Sulphate, pure, lb	7	9
Exsiccated, lb	8	10
And Potass. Tartrate, lb	80	85
And Ammon Tartrate, lb	80	85
LEAD, Acetate, white, lb	13	15
Carbonate, lb	7	8
Iodide, oz	35	40
Red, lb	7	9
LIME, Chlorinated, bulk, lb	4	5
In pakages, lb	6	7
LITHIUM, Bromide, oz	30	35
Carbonate, oz	30	35
Citrate, oz	25	30
Iodide, oz	50	55
Salic ate, oz	35	40
MAGNESIUM, Calc., lb	55	60
Carbonate, lb	18	20
Citrate, gran., lb	35	40
Sulph. (Epsom salt), lb	1¾	3
MANGANESE, Black Oxide, lb	5	7
MENTHOL, oz	55	66
MERCURY, lb	75	80
Ammon (White Precip.)	1 25	1 30
Chloride, Corrosive, lb	1 00	1 10
Calomel, lb	1 00	1 10
With Chalk, lb	60	65

Test Your Glycerin!

A certain indication of impurities in glycerin is foaming on the addition of distilled water and shaking. The more foam, and the greater its persistence, the greater the amount of impurities present. Pure glycerin should be entirely neutral toward litmus.

The following is an outline of a method of assay to determine the quality of commercial glycerin:

To determine the amount of *water* present, place a weighted quantity in a capsule, heat to 110° C. (230 F.), and maintain it at this temperature for one hour, or as long as it gives off aqueous vapors. Let cool and weigh the residue. The difference will give the amount of water present. From this determine the percentage.

Organic matters present are determined by adding to the glycerin double its weight of water, and precipitating the subacetate of lead.

Lime, if present, is detected by the addition of ammonium oxalate, which, added to pure glycerin, should not give a white precipitate. A solution of barium sulphide will throw down the *sulphates*, *lead salts*, *hydrogen sulphide*, etc., if present.

The most frequently occurring falsification of glycerin is the addition of *glucose* to the white, and *molasses* to the yellowish or brown varieties. To discover these frauds, agitate the sample with chloroform. The latter takes up the glucose, and the pure glycerin will float on top of the solution.

Sodium bichromate, headed with pure glycerin, should give no coloration. If color is present, it indicates the adulteration with *sugar*.

Having to choose between a number of samples of glycerin, of the same or similar in general appearance, color, etc., put 5 ccm. of each sample in a test-tube and add an equal amount of distilled water, agitate, and then choose that sample which gives the least foam, or that whose foam is the least durable—this on the basis of the first proposition above.—*American Soap Journal.*

Calcium Permanganate for Purifying Water.

Bordas and Girard suggest the employment of calcium permanganate for the purification of drinking water, since the use of this salt obviates the introduction of a foreign soluble salt, as when the permanganates of sodium or potassium are employed. To remove an excess of calcium permanganate, the lower oxides of manganese are used, which reduce the permanganate to the insoluble binoxide. Water thus treated contains neither dead organic matter nor living organisms; but contains a little calcium carbonate and minute traces of peroxide of hydrogen, which tend to assure the asepsis of the fluid.—*Comp. rend.—Pharmaceutical Journal.*

Books and Magazines.

A new book on Canada, by Dr. Bourinot, will shortly be issued. It is entitled "How Canada is Governed," and gives in plain, simple language a short account of the Executive, Legislative, Judicial, and Municipal institutions of the country, together with a sketch of their origin and development. The book will be illustrated with numerous engravings and autographs, and, being the work of so eminent an authority as Dr. Bourinot, will be indispensable to those who wish to be well informed about the affairs of the Dominion. The Copp, Clark Company (Ltd.), are the publishers.

The *Delineator* for July contains "The Etiquette of Visiting"; "Training-school Experiences"; "Profitable Poultry-Keeping"; Kindergarten Papers; Burnt Work; an article on Alma College, St. Thomas, Ontario; "The College Settlement of New York"; "Voice Culture"; "Relations of Mistress and Servant"; "Choosing a Boy's Career"; Cookery; "Stains and Their Solvents"; "A Sunflower Tea"; "Amusements for Summer Evenings," etc.

The current July number of *Frank Leslie's Popular Monthly* presents an art display that is unprecedented even in the history of this great periodical of the people. It contains no less than one hundred and twenty illustrations, many of them full-page engravings, in the best styles of modern pictorial art; including the work of such well-known illustrators and painters as Carl J. Becker, Valerian Gribayédoff, Joseph Pennell, Hubert Herkomer, Cecil Lawson, G. Favretto, Makowsky, L. E. Fournier, Lepère, Enrico Serra, Henry Dawson, J. Becker, G. A. Davis, Pruett Share, A. B. Shute, F. Adams, Walter Dunk, and others. These pictures are, for the most part, illustrative of the literary features of the number.

"'O, will he paint me the way I want,'
As bonny as a girlie,
Or will he paint me an ugly tyke,
And be d——d to Mr. Nerli?
But still and on and whichever it is,
He is a canty Kerlie.
The Lord protect the back and neck
Of honest Mr. Nerli."

This, one of the last verses ever written by Robert Louis Stevenson, is in reference to the portrait of himself, which is given to the public with his verse for the first time in the July *Cosmopolitan*. The lines might have come from the pen of Burns, and are inimitable in their way. The portrait was declared by Stevenson himself to be the best ever painted of him. In this same number of *The Cosmopolitan* Rudyard Kipling tells an Indian story, to which Remington adds charming illustrations; Mrs. Burton Harrison makes a serious study of New York society in "The Myth of the Four Hundred," and Kate Douglas Wiggin contributes a story of one of the most delightful of Welsh retreats. *The Cosmopolitan* was with this number reduced to ten cents per copy, and, as a consequence, notwithstanding its large edition, it was "out of print" on the third day of publication.

The safeguards of marriage are treated of by Dr. Parkhurst in the July *Ladies' Home Journal* in a way that will strike many as particularly direct and to the point. Never, perhaps, has the marriage question been so well dealt with. The romantic life of the widow of Octave Feuillet is charmingly treated by Madame Blanc, under her pseudonym of "The Benizen," while Hezekiah Butterworth tells "The Story of Brook Farm," that unique New England experiment, which is unknown to a large part of the present generation. The illustrations show "Brook Farm" as it is to-day. The musical features of this issue are many; the most valuable probably being an article on "The Voice of Highest Range," by Frederic Peakes, one of the best known authorities on voice culture, and Mrs. Garrett Webster's carefully prepared article on "The Pay of Women Musicians." *The Ladies' Home Journal* is published by The Curtis Publishing Company, of Philadelphia, for ten cents per number, and one dollar per year.

Cash and Credit.

Every one will admit that the cash system is the ideal method of doing business, but few merchants conduct, or even try to conduct, an entirely cash business. Credit has extended its ramifications into every portion of the mercantile structure, until its abolition would seem almost an impossibility. A contemporary, in discussing this question, asks why merchants encourage the credit system. You answer that you don't. Yes, but you do. If the system were not encouraged by the merchants, it would not be in existence to-day. Did you ever stop to think that the mercantile community of the country are the only body of men that tolerate the credit system? Let's see you buy postage stamps, postal notes, money orders, etc., on credit; try it and see what you will be told. Go to the theatre and you pay money. Express companies demand cash, and railroad tickets are cash on delivery to the purchaser. Why should not the merchant demand and receive cash? Simply because he encourages the credit system. It may be an impossibility to completely eradicate the system, but strict limitations on credit is a step on the right road, and its evolution will be practically a cash basis system of doing business. It is worth a trial and should be begun at once. It would quickly spread, like measles in a country school, and when it does, it will solve the great problem for all time. When sifted down, it will be found that the credit system is the progenitor of, and responsible for, more evils that affect the financial and business world than all other agencies combined. Not only this, but it fosters extravagance—the purchase of goods which can be very well done without.—*Phar. Era.*

Iodide, Proto, oz	$ 35	$ 40
Bin., oz	25	30
Oxide, Red, lb	1 15	1 20
Pill (Blue Mass), lb	70	75
MILK SUGAR, powdered, lb	30	35
MORPHINE, Acetate, oz	2 00	2 10
Muriate, oz	2 00	2 10
Sulphate, oz	1 75	1 80
PEPSIN, Saccharated, oz	35	40
PHENACETINE, oz	35	38
PILOCARPINE, Muriate, grain	35	38
PIPERIN, oz	1 00	1 10
PHOSPHORUS, lb	90	1 10
POTASSA, Caustic, white, lb	60	65
POTASSIUM, Acetate, lb	35	40
Bicarbonate, lb	15	17
Bichromate, lb	14	15
Bitrat (Cream Tart.), lb	23	25
Bromide, lb	65	70
Carbonate, lb	12	13
Chlorate, Eng., lb	18	20
Powdered, lb	20	22
Citrate, lb	70	75
Cyanide, lb	40	50
Hypophosphites, oz	10	12
Iodide, lb	4 00	4 10
Nitrate, gran, lb	8	10
Permanganate, lb	40	45
Prussiate, Red, lb	50	55
Yellow, lb	32	35
And Sod. Tartrate, lb	25	30
Sulphuret, lb	25	30
PROPLYLAMINE, oz	35	46
QUININE, Sulph, bulk	30	32
Ozs., oz	36	40
QUINIDINE, Sulphate, ozs., oz	16	20
SALICIN, lb	3 75	4 00
SANTONIN, oz	20	22
SILVER, Nitrate, cryst, oz	90	1 00
Fused, oz	1 00	1 10
SODIUM, Acetate, lb	30	35
Bicarbonate, kgs., lb	2 75	3 00
Bromide, lb	63	65
Carbonate, lb	3	6
Hypophosphite, oz	10	12
Hyposulphite, lb	3	6
Iodide, oz	$ 40	$ 43
Salicylate, lb	1 75	1 80
Sulphate, lb	2	5
Sulphite, lb	8	10
SOMNAL, oz	85	00
SPIRIT NITRE, lb	35	65
STRONTIUM, Nitrate, lb	18	20
STRYCHNINE, crystals, oz	80	85
SULFONAL, oz	40	42
SULPHUR, Flowers of, lb	2½	4
Pure precipitated, lb	13	20
TARTAR EMETIC, lb	50	55
THYMOL (Thymic acid), oz	55	60
VERATRINE, oz	2 00	2 10
ZINC, Acetate, lb	70	75
Carbonate lb	25	30
Chloride, granular, oz	13	15
Iodide, oz	60	65
Oxide, lb	13	60
Sulphate, lb	9	11
Valerianate, oz	25	30
ESSENTIAL OILS.		
OIL, Almond, bitter, oz	75	80
Sweet, lb	50	60
Amber, crude, lb	40	45
Rec't, lb	60	65
Anise, lb	3 00	3 25
Bay, oz	50	60
Bergamot, lb	3 75	4 00
Cade, lb	90	1 00
Cajuput, lb	1 60	1 70
Capsicum, oz	60	65
Caraway, lb	2 75	3 00
Cassia, lb	1 75	1 80
Cedar	55	85
Cinnamon, Ceylon, oz	2 75	3 00
Citronelle, lb	80	85
Clove, lb	1 20	1 30
Copaiba, lb	1 75	2 00
Croton, lb	1 50	1 75
Cubeb, lb	2 50	3 00
Cumin, lb	5 50	6 00
Erigeron, oz	20	25
Eucalyptus, lb	1 50	1 75
Fennel, lb	1 60	1 75
Geranium, oz	$1 75	$1 80
Rose, lb	3 20	3 50
Juniper berries (English), lb	4 50	5 00
Wood, lb	70	75
Lavender, Chiris. Fleur, lb	3 00	3 50
Garden, lb	1 50	1 75
Lemon, lb	1 75	1 80
Lemongrass, lb	1 50	1 60
Mustard, Essential, oz	60	65
Neroli, oz	4 25	4 50
Orange, lb	2 75	3 00
Sweet, lb	2 75	3 00
Origanum, lb	65	70
Patchouli, oz	80	85
Pennyroyal, lb	2 50	2 75
Peppermint, lb	3 60	3 75
Pimento, lb	2 60	2 75
Rhodium, oz	80	85
Rose, oz	7 50	11 00
Rosemary, lb	70	75
Rue, oz	25	30
Sandalwood, lb	5 50	7 50
Sassafras, lb	75	80
Savin, lb	1 60	1 75
Spearmint, lb	3 75	4 00
Spruce, lb	65	70
Tansy, lb	4 25	4 50
Thyme, white, lb	1 80	1 90
Wintergreen, lb	2 75	3 00
Wormseed, lb	3 50	3 75
Wormwood, lb	4 25	4 50
FIXED OILS.		
CASTOR, lb	9	11
COD LIVER, N.F., gal	1 25	1 30
Norwegian, gal	2 50	2 75
COTTONSEED, gal	1 10	1 20
LARD, gal	90	1 00
LINSEED, boiled, gal	62	65
Raw, gal	60	62
NEATSFOOT, gal	1 20	1 30
OLIVE, gal	1 20	1 25
Salad, gal	2 50	2 60
PALM, lb	12	13
SPERM, gal	1 40	1 45
TURPENTINE, gal	60	65

The Standard Brands.
MILLIONS OF EACH BRAND Sold Annually.
'Cable Extra' 'El Padre' 'Mungo' and 'Madre e'Hijo'
S. DAVIS & SONS MONTREAL, P.Q.

"DERBY PLUG," 5 and 10 cts., "THE SMOKERS' IDEAL," "DERBY," "ATHLETE" CIGARETTES, ARE THE BEST.

D. RITCHIE & CO., - - Montreal.

Drug Reports.

Canada.

There is very little to note in the state of trade since last month. Purchases are light, and are for actual requirements only. The holiday season being well on, many druggists are taking an outing and numbers of their customers likewise. A feeling of hopefulness pervades the business community generally, and an improvement on last season's trade is confidently expected. The changes in prices are much on the line of last month's notations.

Opium is flat and demand light.

Quinine is firm, and indications are for an advance in price.

Mercury has declined somewhat, but not sufficient to affect the prices of mercurial preparations.

Tartaric acid and cream tartar have both advanced.

Coriander seeds, new crop, bring lower prices.

Roman chamomiles, lower.

Iodine is unsettled.

Cod liver oil, both Norwegian and Newfoundland, are still higher, with no prospect of a decline.

Linseed oil, boiled and raw, advanced four cents a gallon.

Salicylic acid is lower, in spite of large demand. The determination of the combination to crush the outside makers is the cause of the low price of this drug.

Glycerine has advanced.

Camphor remains firm.

England.

LONDON, June 25th, 1895.

Business has not revived much, and trade is reported generally as dull. The advance in quicksilver and mercurials is maintained. Chlorate of potash is firmer. Oil of neroli is dearer, and Mitchan's oils of lavender and peppermint have advanced. Opium continues to droop, and its alkaloids are easier. A further slump is expected in salicylic acid and salicylates, in order to keep out competitors. Quinine is without much demand. Balsams, copaiba, tolu, and peru are all firmer. Cod liver oil maintains its high rate, and caffeine is dearer, owing to absence of crude material.

The Holder.

Occasional inquiries have reached the office of the O. & W. Thum Co. regarding the five tanglefoot holders advertised as being in every case of regular size of tanglefoot. The holders are not packed in a separate package, but every alternate box contains one holder wrapped up ready to hand out. The purpose of this mode of packing is to give those who buy broken cases a chance of receiving a few holders, thereby distributing the holders to a greater number of dealers.

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VII. TORONTO, AUGUST, 1895. No. 8

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

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FRANCE: 5 Rue de la Bourse, Paris.

CONTENTS.

A Retrograde Movement.
DRUG CLERKS.
Turpentine in Cholera.
TRADE NOTES.
Montreal Notes.
Prince Edward Island Notes.
Manitoba Notes.
New Patents.
Department Stores.
Pharmacy in England.
Relative Volume of Powders.
CORRESPONDENCE.
The Educational Side.
National Wholesale Druggists' Association.
Concerning Ricine.
A Consideration of the Pharmacist of To-day.
Practical Value of Pharmacognosy.
Druggists and Photography.
EDITORIALS.
The New Officers.
Cod Liver Oil.
What is the Association Doing Now?
Ontario College of Pharmacy Council Meeting.
A Good Advertisement.
The Output of Gum Arabic in the Soudan.
British Columbia Pharmaceutical Association.
PHARMACEUTICAL NOTES.
Palatable Medicine.
Losses and Leaks in the Drug Business, and How They may be Prevented.
Effervescent Powders.
FORMULARY.
PHOTOGRAPHIC NOTES.
PAINTS AND OILS.
BUSINESS NOTICES
BOOKS AND MAGAZINES.
DRUG REPORTS.

A Retrograde Movement.

We cannot but regret the decision arrived at by the newly-elected Council of the Ontario College of Pharmacy at their first meeting, held last week, in reply to the letter of the Pharmaceutical Association of Quebec in reference to the formation of a Dominion Pharmaceutical Association. The following resolution was passed: "That while your committee is in sympathy with the objects of the proposed Dominion Pharmaceutical Association, it is of the opinion that in the face of a failure of the druggists of this province to maintain a provincial association on somewhat similar lines we cannot look for any great measure of success from the attempt to form a Dominion association, and we cannot therefore recommend the co-operation of this council."

Looking over the names of those druggists who were present at the inaugural meeting of the Ontario Provincial Pharmaceutical Association we find that, outside of the members of the council then in session, only one other member of the present council attended the meeting. Eight out of the thirteen members took no part whatever, neither sharing their "sympathy" by their presence, nor by any words of encouragement.

If the remainder of the druggists of Ontario were as apathetic in pharmaceutical matters, we should say, abandon the idea, at least as far as this province is concerned: but we feel that such apathy does not exist, and we trust the promoters will not accept this resolution as representing the voice of the pharmacists in this premier province. In marked contrast was the resolution passed by the former council, who at the regular meeting held in August, 1893, on motion of Messrs. D'Avignon and Jordan, adopted the following recommendation of the special committee:

"Your special committee have considered the communication of the Pharmaceutical Association of Quebec referred to them, and beg to report, recommending that the registrar-treasurer be instructed to reply to the letter, stating that this council affirms the principle that a uniform standard should be established for all pharmaceutical preparations used in Canada; and that we approve of the suggestion that steps should be taken to form a Pharmaceutical Association of the Dominion, with the view of striking a committee of representatives from the various provinces for taking such action as will prove of advantage to the druggists of the Dominion, and that the council authorize the president and vice-president, with power to add to their number, to act as a committee, in conjunction with the committees from other colleges and associations, and that such conference should be called together by the association of the Province of Quebec at as early a date as possible."

(Signed.) J. E. D'AVIGNON, Chairman.

Our report of that meeting shows that "the speakers were unanimous in urging the necessity of the action proposed therein." There certainly is as great reason, if not greater, for the formation of a Dominion association now as there was when this latter resolution was passed. Can it be that they were able to take a larger view of affairs than their successors in office? We are inclined to the belief that the resolution passed by the present council must have been passed on the recommendation of a committee who failed to take the time necessary to consider a matter of such vital importance to the druggists of Canada. In the meantime, the resolution must be taken only as representing the opinion of the council, but not that of the druggists of Ontario.

PARACHLORSALOL, A DISINFECTANT.—The production of a compound bearing to salol the same relation as is borne by parachlorphenol to phenol has been announced by Prof. Girard ("Corresp. bl. f. Schw. Aerz.," xxv., p. 403). The pharmacological and clinical tests to which it has been so far subjected seem to show that it surpasses salol in its disinfecting power, without possessing any of its secondary toxic properties.—*Merck's Report.*

Drug Clerks.

To the Drug Clerks of Canada:

This page is set apart for your especial benefit. We ask you to write for it, to ask questions through it, to give your fellow clerks the benefit of your experience, your observations, and your researches in pharmacy.

You, the drug clerk of to-day, will be the proprietor in the near future. What can you do for the benefit of your *confrères* in pharmacy? What can you learn for your own benefit? Much may be said in this page that will repay you a hundredfold for your reading it, and much that you may say in it may likewise benefit others. This is no selfish, narrow-minded age; it is an age of development, an age when one man is endeavoring to show others what has been done and may be accomplished, and yours it is to make this not only one of the most useful, but the most entertaining pages in the whole of our issue. It will pay you to "cast your bread upon waters"; it will return to you multiplied.

Accuracy.

Look three times! An esteemed subscriber writes as follows: "When I reach for a shelf bottle I look at the label and do not trust to luck; as I pour or weigh out its contents I look again, and as I set it back on the shelf I take a final look. By constant practice this operation is now a fixed habit; it keeps my mind on my work, it takes no extra time, and it prevents mistakes. My advice to pharmacists who desire to be accurate is: Have your wits about you and look three times." —*Era.*

Diligence.

A diligent clerk can always find useful and profitable work for spare time.

Hunt and look up prices and price lists; study and make yourself conversant with the trade price lists and discounts.

This desire to profitably turn to account spare time will meet with ample reward, and will pay you with compound interest on acquiring industrious habits alone; at the same time you rise in the estimation of those around you and become important.

You know the condition of the stock and where to put your hand on everything.

You are intelligently enlightened and can speak of the quality or quantity, sizes and kinds that sell and give satisfaction; you become a reference to consult as to the condition of the stock—what is required to replenish and keep the stock up to the times and demands of the public.

All this acquired information not only establishes confidence in yourself, but commands the confidence and respect of your fellow salesmen, customers, and employer.—*Exchange.*

Perseverance.

None should be discouraged because they do not get on rapidly in their calling from the start. A clerk earning ten dollars a week has an idea his services are not appreciated merely from the fact that other clerks are earning more salary. It does not occur to him to make his work invaluable to his employer by mastering all the details of the business, which will enable him to earn a competent salary.—*Denver Tribune.*

Bear all troubles patiently.

Do not reckon upon chance.

Make no useless acquaintances.

All men are dust—some gold-dust.

A good advertisement is good advice.

The wise man sees when the fool but looks.

The brighter the light the darker the shadow.

Truth is the highest thing a man may keep.—*Chaucer.*

Be not simply good, but good for something.—*Thoreau.*

Cultivation is as necessary to the mind as to the body.—*Cicero.*

—*Exchange.*

Look at the Practical.

Too many druggists resemble literary men in that they know nothing about bookkeeping. They have made such a study of the scientific side of pharmacy that they have come to look upon dollars and cents as unworthy of their consideration. Bookkeeping and buying and selling are to them matters of no consequence, and are usually turned over to the tender mercies of some poorly-paid assistant. It is a great distinction to be able to sit down and write, without rising, a learned monograph upon some newly-discovered chemical reaction, but it is quite as important to be able to tell if one is making a dollar or losing a thousand a year. Watch your money-drawer first, and your test-tubes and retorts afterwards.—*Spatula.*

"Do Unto Others," etc.

Did you ever reflect what a splendid rule the golden rule, "Do unto others," etc., is for the conduct of the druggist and his clerks, and that if it is observed no other rules are necessary? Directed toward customers it is a trade winner, and puts hard, cold dollars of profits into your pockets. This rule is capable of broadest extension and widest application. It means that you should treat customers politely, and really strive to meet their wishes and please them, that even the drummer is not to be insulted, and that the ragged urchin, who requests a picture card, is not to be roughly driven away with words of contumely and abuse. It also means that you are to be just and honest in all your commercial dealings, but it does not debar you from tempering justice with mercy when occasion demands, especially when dealing with the poor, whom necessity and want oppress. Think it over, and you will realize what a complete set of rules is embodied in this single one.—*Pharmaceutical Era.*

Pharmaceutical Examinations.

The preliminary examinations of the Pharmaceutical Association of the Province of Quebec were concluded on Saturday, July 6th. Of the twenty-five candidates who presented themselves, only two—J. N. Farley and R. H. D. Benn—passed in all the subjects; J. B. Bisaillon failed in Latin, and will have to present himself at the next examination for this subject, and two others were held over for the consideration of the board.

Be Prompt.

Be prompt in attending to customers.

Be prompt in dispensing prescriptions.

Be prompt in delivery of goods.

Be prompt in meeting your obligations.

Be prompt in keeping your appointments.

Be prompt in ordering goods when needed.

Promptness in the master inculcates promptness in the clerk, and ensures promptness in all branches of the business, whether at the counter, dispensary, office, laboratory, or wareroom.

Turpentine in Cholera.

A correspondent writing in the *Indian Medical Gazette*, speaks very highly of the properties of oil of turpentine in the treatment of cholera. He gives the following prescription:

℞

Ol Terebinth	ℿxx. or xxx.
Mucilage	qs.
Spts. ether int.	ℿxx.
Spts. camphor	ℿv.
Tr. Digitalis	ℿv.
Aquæ	℥.

To be given every hour or two, according to the severity of the attack.

The writer claims that "turpentine as an antiseptic acts upon and destroys the cause, the bacilli, on the one hand, and on the other its astringency controls the evacuations, and as a diuretic it promotes the secretion of urine."

PRESERVATION OF SYRUPS.—A writer in the *Bollettino Chimico Farmaceutico* recommends benzoic acid as a preservative for syrups. It acts well as a preservative, he says, in the small proportion of 1 to 1,000.

The average merchant, if asked to make a speech, would require time enough to prepare it carefully before delivering it, and yet most of them will write an ad. on the while-you-wait plan, without stopping to think that every ad. is expected to convince a greater audience than could ever be reached by one human voice.—*Printer's Ink.*

A. Y. Scott. D. MacMillan.

Scott & MacMillan

MANUFACTURERS OF

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Sundries

ALMOND CREAM
PANSY VIOLET TOILET POWDER
PANSY VIOLET JELLY CREAM
PANSY VIOLET TOOTH POWDER

Shuttleworth's . .

Fluid Extracts .
Elixirs . . . .
Medicinal Syrups
Liquors . . . .
Tinctures . . .
Green Soap . .
Chlorodyne. . .

Standard in strength and quality. Reasonable in price. Satisfactory in use.

Apply for Price List and Special Discounts to

T. MILBURN & CO.

Toronto, - - Ontario

ELLIOT & CO.

TORONTO

Wish to remind the Drug Trade that they deal in

Surgical Instruments and Appliances

And beg to suggest that it would be to the advantage of all parties if the druggist would obtain the orders of the physician in his custom, by getting special quotations from us upon any list of requirements.

Specify JOHNSON & JOHNSON'S Dressing.

Mc.K & R.'s Tartarlithine Tablets
Tartarlithine and Sulphur Tablets
Pyrozone 3%., McK. & R.
Pyrozone Atomizers
"Sanitas" Grape Juice
Hypodermic Syringes (Aluminium Case)
Vin St. Michel
Electric Batteries
From $4 up.

Enquiries solicited for quotations upon "Special Form" pills, sugar-coated, lots of 3,000, or more, or gelatine coated, lots of 1,000, or more, and compounds of all kinds.

J. STEVENS & SON,

78 LONG LANE, - LONDON, E.C., ENGLAND

Red Cross English Dressings,
Druggists' Specialties,
Glass and Earthenware,
Hospital Suppl es and Instruments.

1895 List and Discounts now ready.

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145 Wellington Street West,
TORONTO

ALPHA RUBBER CO., LTD.

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MANUFACTURERS OF

Fine Rubber Goods

Druggists' Sundries in Rubber Goods are our specialties. We make in Canada a full line of these goods.

Our New Price List is now ready, and can be had on application.

Baylis Manufacturing Co.

16 to 30 Nazareth Street,
MONTREAL

IMPORTERS OF

Linseed Oil
Turpentine
Castor Oil
Paris Green
Glues

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DICK'S UNIVERSAL MEDICINES

FOR HORSES AND CATTLE

They always give entire satisfaction, and there are no medicines in the market that can compare with them.

Thrifty farmers, stockowners and carters all over the country are, by actual results, realizing that they cannot afford to he without a supply of

Dick's Blood Purifier Price 50c.
Dick's Blister, for Curbs, Spavins, Swellings, etc. Price 50c.
Dick's Liniment for Cuts, Sprains, Bruises, etc. Price 25c.
Dick's Ointment. Price 25c.

Circulars and advertising cards furnished.

DICK & CO., P.O.Box 482, MONTREAL.

The Best Brushes

Hair, Tooth, Nail,
Shaving, Bath,
Cloth, Infants'

MANUFACTURED BY

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Agents for Canada—

J. PALMER & SON,

1747 Notre Dame Street, MONTREAL

ONLY **10 CENTS** A PACKAGE

DR. STORY'S 5 MINUTE

Headache AND Neuralgia Cure

Every package guaranteed and will positively cure
Sick Headache in 5 minutes
Grip Headache in 5 minutes
Nervous Headache in 5 minutes
Neuralgia Headache in 30 minutes
Pain in Side or Back in 30 minutes.

By taking a powder on retiring for a few evenings it will cure

Nervous Prostration
Sleeplessness
Fidgets
Brain Trouble

due to overwork. A nerve food that will cure Weak Nerves quicker than anything in the world. After a night of over-indulgence - that despondent, nervous condition, sick stomach, that terrible headache, can be cured in a few moments with Dr. Story's 5 Minute Headache Cure. Recommended by Chemists, is perfectly harmless, containing no opium, morphine, cocaine, antipyrine, or deleterious drugs. Try just one package, only 10 cents. When it has cured you tell your friends.

FOR SALE BY

THE LONDON DRUG CO.,

Wholesale Agents for Western Ontario

THE

Lyman Bros. Co.

(Limited)

TORONTO, ONT.

Acid Butyric
Acid Sulphoanilic
Bromoform
Conmarin
Diuretin
Eucalyptol
Guaiacol
Paraldehyde
Vanilline

Astringent Pencils
Fitche's Pocket Scales

Cleaver's Juvenia Soap
Sainsbury's Lavender
Sweatine (FOOT POWDER)
Suchar's Chocolate

Wax Candles Assorted Colors
20, 30, 40 and 45 to box

We are headquarters for

Southall's
Sanitary Towels

and have in stock Nos. 1, 2, 3, 4.

Special prices to large buyers.

Trade Notes.

H. F. Gordon, druggist, Wingham, Ont., has made an assignment.

Lemuel B. Klein has been fined $20 by the Police Magistrate of Toronto for an infringement of the Pharmacy Act.

H. A. Knowles, formerly in the drug business in Toronto, Ont., but which he sold a few months ago, died suddenly August 1st.

J. H. Dickey, of Trenton, Ont., was chosen representative of District No. 2 at the recent meeting of the Council of the Ontario College of Pharmacy.

H. N. Burgess, having purchased the drug stock of Mr. Gaynor, is moving it to his new store at the corner of Yonge and Alice streets, Toronto, Ont.

Prof. Heebner, Dean of O.C.P., has proved himself a leader, not only in pharmaceutical matters, but also on the wheel, having secured six first prizes, besides several seconds, during the holiday season.

W. R. Langridge, for the past six years travelling representative for Elliot & Co., Toronto, in the western Ontario district, is now on the road over his old territory in the interest of John Taylor & Co., Toronto, soaps and perfumes.

The death occurred last week at Montreal of Dr. Henry Miles, father of Mr. Henry Miles, of the firm of Lyman Sons & Co., wholesale druggists, Montreal. Amongst the floral tributes was a magnificent wreath from the employees of this firm.

Montreal Notes.

Mr. E. Muir, the secretary and registrar of the Pharmaceutical Association, will take a brief respite from the cares of office during the week commencing August 12th. He will officially represent the Pharmaceutical Association of the Province of Quebec and the Montreal College of Pharmacy at the annual meeting of the American Pharmaceutical Association, to be held this year at Denver, Colorado. Mr. Morrison, it is expected, will also be present at the meeting in the interest of the *Montreal Pharmaceutical Journal*, and, it is expected, will read a paper connected with manufacturing pharmacy. Messrs. S. Lachance, Montreal; Williams, Three Rivers; William H. Griffith, Sherbrooke; and Henry R. Gray, Montreal, are also thinking of going to the meeting, but nothing is as yet finally decided.

Messrs. W. A. Dyer & Co., who succeeded to the branch of the Medical Hall, Phillips Square, and who, when that building was pulled down last year, removed to the corner of University and Catherine streets, have just sold out to Mr. John Lewis, proprietor of the Victoria Square Pharmacy, corner of Craig.

On dit, that Mr. H. F. Jackson is desirous of selling his drug store at 4191 St. Catherine street, Westmount, and that Mr. W. H. Chapman, who has a branch in that suburb, will possibly acquire it, so as to amalgamate the two stores, as there is evidently not sufficient business for two pharmacies in that locality.

Dr. Reed, the senior professor, has been appointed Honorary Dean of the Montreal College of Pharmacy, a much-delayed but well-merited honor, in recognition of long and valuable services to the college. The worthy and venerable Dean has left on a tour to include Baltimore, Washington, Philadelphia, and other places. He will visit the colleges of pharmacy on his route, and note what is to be seen, although the principal object of the doctor's visit so far south is to visit a Montreal patient of his temporarily residing in Virginia. It is just possible he may stretch his route so as to be in Denver during the session of the pharmaceutical convention there.

Some slight changes will take place this winter in the curriculum of study at the College of Pharmacy. The idea is to make things as practical as possible, so that the holding of the clerk's certificate or graduate's license will be a guarantee of practical efficiency behind the counter. It must be borne in mind in making changes that materia medica is, and ever will be, the basis of all pharmaceutical education.

At a recent meeting of the Board of the College of Pharmacy, Mr. Morrison, who is in charge of the laboratory of Messrs. Lyman, Sons & Co., and editor of the *Pharmaceutical Journal*, has been appointed Lecturer on Botany, and Mr. Henri Lanctot, Lecturer on Materia Medica. Both these lectures will be delivered in French.

Prince Edward Island Notes.

Mr. Arthur Reddin, for some years in the employ of Messrs. Reddin Bros., Charlottetown, has opened his new drug store on the north side of Queen Square, midway between the Apothecaries' Hall and Mr. Rankin's drug store. The "Central Drug Store" is neatly and modestly fitted up, and has ample accommodation for a nice business. Mr. Reddin has as clerk Master Harvie, lately in Messrs. Johnson's employ.

Mr. George Reddin has returned after his outing consequent upon his marriage with Miss Florence Murray.

Mr. James Ferguson was incapacitated for a few days lately, owing to an accident by which a quantity of carbolic acid was thrown into his eyes.

A very attractive soda fountain has been added to the equipment of Watson's new drug store.

The paint brush has been applied extensively lately. Apothecaries' Hall has been painted blue and white inside, orange and brown outside. The front of Dodds' Medical Hall has been decorated in yellow and black, and the exterior of Watson's drug store in darkest green and gold, all with good effect.

Manitoba Notes.

The Winnipeg Industrial Exhibition brings to Winnipeg once a year drug men from all over the province and territories. Among those attending this year's exhibition were: Mr. D. M. Sutherland, Boissevain; Mr. A. R. Leonard, Stonewall; Dr. F. Woodhull, Hartney; Mr. J. A. Hobbs, Morden; Mr. Alf. Hill, Griswold; Mr. A. G. Orchard, Indian Head; Mr. A. D. Ferguson, Wolseley.

Mr. F. C. Van Buskirk has disposed of his drug business at Fort Saskatchewan to Mr. C. S. Touchburne, of Alexander.

Mr. C. W. Herrell, druggist, Neepawa, has disposed of his stationery stock, and will continue in the drug business only.

Mr. W. J. Mitchell, of Toronto, formerly in the wholesale drug business in Winnipeg, arrived from the east a few days ago, accompanied by his son, Mr. Harry Mitchell, who had been spending holidays with his parents in Toronto.

Mr. H. E. Mitchell has just returned from a holiday trip to eastern cities.

Mr. E. Casselman, of Emerson, was in Winnipeg last week on business.

Mr. Fortier, representing the Dodds Medicine Company, is in Winnipeg, instituting a tour of the province and territories.

Mr. Peter Ross, who for some time conducted a drug business in Edmonton is now representing Messrs. Archdale' Wilson & Co., of Hamilton, in western Canada.

New Patents.

Amongst recent United States patents granted are the following of interest to the drug trade:

No. 539,429.—Bottle Stopper. Charles Huch, Hoboken, N.J.

A bottle stopper composed of a porcelain plug, having a peripheral groove and a tapped axial perforation that extends partially through the plug, a rubber gasket received within the groove, and a bent spring wire having a threaded end that is received within the tapped perforation.

No. 539,961.—Atomizer. Sterne Russell, Naugatuck, Conn.

In an atomizer, an atomizing tube having a single conduit therethrough, a core located in the forward end of the atomizing tube, the core being provided with one or more spiral grooves in its surface, a centrally perforated cap at the forward end of the atomizing tube, with a supply tube adapted to conduct the liquid from the interior of the receptacle to the atomizing tube, and with means for forcing the liquid through the supply and atomizing tubes.

No. 540,064.—Nipple for Nursing-Bottles. Samuel R. King, Providence, R.I.

In a nursing-bottle, the combination with the neck of the bottle, provided at its ends with an annular projection, of a metal nipple, having thin rigid walls, provided at its base with an outwardly-projecting flange, and the elastic band adapted to secure the nipple to the bottle.

No. 540,213.—Syringe. John H. Morrison, Salida, Col., Georgia A. Morrison, executrix of said John H. Morrison, deceased.

An attachment for syringes, consisting of a substantially conical chamber, having a flexible wall, and provided with a lengthwise passage therethrough for receiving the main tube of a syringe, and having an inlet opening in its reduced end, and an outlet opening in its opposite end, and a conical flange or shoulder extending from the outer edge of the opposite end of the chamber, and forming a continuation of the outer longitudinal wall of the conical chamber for protecting the adjacent parts of the user.

No. 540,521.—Bottle Stopper and Feed. William S. Swan, Maumee, Ohio.

The combination of a tubular stopper of rubber, having an air chamber formed at its upper portion, and an elastic centrally perforated diaphragm, arranged over the air chamber, a depressible funnel arranged over the diaphragm, and adapted to be upheld normally by the elasticity thereof, a funnel tube connected to the funnel, and passing through the central perforation in the diaphragm, and also through the central opening of the tubular stopper, two projecting flanges formed around the upper part of the funnel tube, and adapted to embrace the edges of the elastic diaphragm between them and the sleeve of hard material, the internal diameter of which is larger than the diameter of the funnel tube, whereby an air passage is left therebetween, the sleeve being arranged in the central opening of the tubular stopper, with its upper end in position to be engaged by the lowermost flange on the funnel tube when the funnel is depressed, whereby it is stopped against excessive movement.

No. 542,524.—Detergent Compound. Llewellyn H. Hutchinson, Northfield, Vt., assignor to Marlborough W. Cross, George A. Cross, Levi T. Cross, and John A. Cross, same place.

Claim.—The composition of matter herein described for cleansing marble, granite, and the like, consisting of oxalic acid, wood alcohol, chloride of lime and water in about the proportions stated.

No. 542,692.—Manufacture of Solid or Massive Compound of Pyroxyline. John H. Stevens, Newark, N.J., assignor to the Celluloid Company, same place.

Claim.—(1) The process of manufacturing solid or massive pyroxyline compounds, which consists in mixing pyroxyline, di-nitro-toluol and camphor, and subsequently subjecting the resulting compound to heat and pressure sufficient to render the compound plastic, substantially as described.

(2) The process of manufacturing solid or massive pyroxyline compounds, which consists in mixing pyroxyline, di-nitro-toluol and camphor, and a liquid solvent, and subsequently subjecting the resulting compound to heat and pressure sufficient to render the compound plastic, substantially as described.

(3) As a new composition of matter, a solid or massive pyroxyline compound containing pyroxyline, di-nitro-toluol, and camphor, substantially as set forth.

(4) As a new composition of matter, a solid or massive pyroxyline compound containing pyroxyline, di-nitro-toluol camphor, and a liquid solvent, substantially as set forth.

No. 542,758.—Process of Purifying Oils or Fats. Georges A. Freyss, Mulhouse, Germany, assignor to the Fabriques des Produits Chimiques de Thann et de Mulhouse.

Claim.—(1) The herein described process for the purification of fats, oils, and analogous products, so as to render them fit for alimentary purposes, said process consisting in the treatment of the products in question at a temperature of from 110° to 220° centigrade, by means of a gaseous purifying agent, as specified, the entire process being conducted under exclusion of air, as set forth.

(2) The herein described process for the purification of fats, and analogous products for alimentary purposes, consisting in forming an emulsion of the product with alkaline bisulphite, and then treating the emulsion at a temperature of from 110° to 220° centigrade, by means of a gaseous purifying agent, as specified, under exclusion of air, as set forth.

Department Stores.

The department store as a definite, aggressive factor in merchandise distribution at retail, is a comparatively new creation. Availing itself of the advantages illustrated in industrial consolidation, it began with a modest establishment in Philadelphia, where it waxed great and powerful, then intrenched itself in New York and moved then rapidly westward, touching nearly all the larger cities in its progress, finally reaching the culmination of its audacity, power, and all-pervading avarice in Chicago, but at the same time continuing its progress, with insolent daring to the Pacific coast.

The department store is in armed rebellion against not only every form of retail trade but also against the prosperity of nearly all occupations and industries. Everything is subordinate to the department store "bargain," which flaunts its lie through the public prints before the eyes of all classes. It stops at nothing in the way of ingenious misrepresentation as to qualities, prices, or conditions. It recognizes no law of trade save that to the victor belong the spoils. It demoralizes markets, insults and plunders industry, impoverishes tradesmen, and by its insatiate demands for something "cheap" is a potent influence for the degradation in skill and wage-earning capacity of the workingman. It crushes remorselessly the independent, small retailer, and transforms him into a hireling with a pittance of eight to ten dollars a week. It displaces the men and women of respectable income in the regular retail stores and fills their big establishments with an oppressed and half-starved multitude of boys and girls. It is degrading American citizenship by driving out independent business men and converting them into despairing clerks, whose poverty conduces to political evils extending to future generations.

An influence of such far-reaching injury properly becomes a subject of legislative inquiry and action. The problem is, however, as complicated as it is urgent. The evils are evident, but they are as yet without a known remedy. A bill before the Illinois legislature proposes to vest in cities the power of license and regulate all branches of trade, classifies all the various divisions into their natural trade groups, and imposes a culminative tax on all establishments dealing in more than one trade line or group, the intention being to make the cumulative force of taxation for each additional department so great that consolidation beyond natural and salutary limits will be practically impossible.

The propriety and even the necessity of resistance, by every occupation, to the encroachment of the department store is evident. Its evils are now confined principally to, or radiate from, the larger cities, but it is only a question of time, unless the pernicious principle be effectively combated, when it will appear in all excepting the strictly rural communities.—*Western Druggist.*

Masking the Bitter Taste of Quinine.—Dr. Lemanski, of Tunis, states that of all the various methods of disguising the bitter taste of quinine salts, he has found none to excel that of adding the prescribed dose to a cup of coffee, slightly fortified with a little cognac or any other alcoholic beverage. This means has been effective in overcoming the repugnance of laborers working in malarial regions to the medicinal doses of quinine which the authorities issued to them, and therefore insured a greater chance of the dose being properly taken. Other observers have reported very favorably of the excellence and convenience of the method. The hydrochlorate of quinine is to be preferred to the more frequently used sulphate, since it appears less frequently to give rise to digestive disturbances.—*Rev. Internat. de Mèd. et de Chir. Prat.*

A detective who wishes to make a capture works secretly, but a merchant seeking to capture trade cannot work that way. He must let people know what he is after.—*Exchange.*

WILSON'S ROOT BEER

Each Ten-Cent Bottle makes five gallons of a most delicious and healthful Temperance Beverage.

SELLS FAST and DRAWS TRADE.

Send us an order for a gross NOW and get the cream of the demand.

Plenty of Advertising Matter with each Order.

ARCHDALE WILSON & CO.,

WHOLESALE DRUGGISTS,

HAMILTON, ONTARIO.

Price List of Pharmaceutical Products

WE have just issued a new Pharmaceutical Price List (Catalogue No. 95), a copy of which we would be pleased to mail to all established retail druggists who may write for it. We believe it to be most comprehensive in its scope, as it includes within its pages the prices on fully 4,000 pharmaceutical products, which are conveniently arranged in groups. The notes of reference given in the appendix should be of interest and assistance to the careful buyer. In order to comply with the request of the wholesale drug trade that all lists conform to a general standard as far as could be done consistently, we have adopted in Catalogue No. 95 a system of long prices with discounts, which are liberal. Our terms of three months' credit, no charge for containers, cartage, and boxing, are certainly worthy of consideration.

Frederick Stearns & Co.

Manufacturing Pharmacists. *WINDSOR, ONT.*

Wampole's

BEEF, WINE, AND IRON.

In Pint Bottles.....$5 00 per doz.
Winchester (½ Imp. Gal.)..... 2 00 each.
Imp Gallon, in 5 gal. lots, and over 3 50 per gal.

With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

¼ Gross lots, and over.....$60 00 per gross.
(Packed in One-Dozen Cases.)

We use a Pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

We invite comparison with other manufacturers, and will cheerfully furnish samples for that purpose.

Your early orders and enquiries solicited through Wholesale Jobbers or direct from us.

Henry K. Wampole & Co.,
MANUFACTURING PHARMACISTS,
Philadelphia, Pa.

Canadian Branch:
36 and 38 Lombard Street, TORONTO.

Telegrams: "Borax, Kidsgrove"
All Communications to be addressed to Kidsgrove.

MEAR & GREEN
(LIMITED)

Best English Refined

Borax
and
Boracic Acid

Lump, Crystal, Granulated,
and Finest Powdered.

BORAX WORKS:
Kidsgrove and Tunstall, Staffs.
BORACIC ACID WORKS:
Connah's Quay, Flint.

ENGLAND

Radlauer's Somnal
AETHYL-CHLORALURETHAN
(REGISTERED)
THE NEWEST AND MOST EFFICIENT SOPORIFIC REMEDY

Taken in doses of 32 grains, or half a teaspoonful, in milk, ale, or cognac, produces in half an hour a quiet refreshing sleep, lasting from six to eight hours, with no unpleasant after effects. The effects of SOMNAL are more pleasant than those of Chloral Hydrate and Morphia. Experiments made in the Town Hospitals, Moabit and Friedrichshain, Konigliche Charité and Konigliche Universitats Poliklinik, Berlin, have shown that SOMNAL does not accelerate the pulse and does not upset the stomach. SOMNAL is especially recommended for Nervous Insomnia, Neurasthenia, Spinal Complaints, Infectious Diseases, Paralysis, Melancholia, Hysteria, Morphinismus, and Diabetes. The low price of SOMNAL enables its use in the poor and workmen's practice and in hospitals.

Radlauer's Antinervin
(SALICYLE BROMANILIDE)
In the form of Powder, the most efficacious Antipyretic, Antineuralgic, and Antinervine

ANTINERVIN replaces and surpasses Antipyrin, has no hurtful secondary effects, and is cheaper. Taken in doses of 8 grains four times a day, it is an excellent remedy for Feverish, Catarrhal, and Rheumatic Pains.

ANTINERVIN is of especial service in cases of Influenza, Neuralgia, Asthma, Tuberculose, Yellow Fever, Malaria, Migraine, Gout, Rheumatism in the Joints, Diptheritis, and other typical Fevers

MANY GOLD MEDALS HAVE BEEN AWARDED

S. RADLAUER, Kronen Apotheke, FRIEDRICHSTRASSE, 160 BERLIN, W.
W. J. DYAS, Toronto, Ontario - Wholesale Agent for Canada

"THE TWIN"
HALF-MINUTE
Clinical Thermometer

FOR QUICK REGISTRATION OF TEMPERATURE
INDELIBLE BLACK

PATENTED MARCH 25, 1890

The most Substantial Sensitive Thermometer ever offered to the Medical Profession.

With the atmospheric register at 60°, if "THE TWIN" be immersed in warm water of 105°, the mercury will reach that degree in less than **20 Seconds.**

The welding the two bulbs into one without any intervening space renders "THE TWIN" much stronger and less liable to break than any other heretofore offered.

It will also be found much more convenient to carry, requiring less room in a case or in the vest pocket. For these reasons, as well as for its **Guaranteed Accuracy**, "THE TWIN" is universally recommended by the medical profession.

FOR SALE BY ALL DEALERS. $2.00 EACH

25 per cent. discount to all doctors who mention the "Canadian Druggist"; if in gold with chain and pin, $2 net.

SOLE AGENTS: **S. B. CHANDLER & SON, Toronto, Canada.**

Pharmacy in England.

Formalin as a Preservative — Condonsed Milk without Cream National Veterinary Association at Birmingham — Strychnine for Phenacetin — The Storage and Dispensing of Poisons Meeting of the British Medical Association in London.

(From Our Own Correspondent.)

The use of formalin as a preservative in preference to salicylic acid is unquestionably growing. Not long ago it was discovered in the milk sold over the counter of one of the largest restaurant companies in London. Since then public analysts are keeping a sharp look-out for it in articles of food, as its harmlessness is by no means generally admitted. It has a very penetrating, almost suffocating, odor, and in its commercial form is unquestionably a powerful drug, acting as a hardening agent upon the tissues. But so does strong alcohol, and the question that remains to be settled is the effect, when used in very minute quantities. In some experiments I made recently with formalin as a preservative of infusions, only a few drops of a 0.1 per cent. solution were necessary to preserve some of the worst-keeping infusions for a month. In comparison with chloroform, volume for volume, it was distinctly a better preservative. At the meeting of the British Medical Association next week in London a paper is to be read upon the therapeutic properties of formalin, and after its publication we shall be in a better position to determine the value of formalin, and the limits of its safe use as a preservative for foods and drugs. In the case of foods there can be no doubt that if the body is at all deleterious to human life it must be discarded, as the consumption of foods may be large.

Condensed milk, according to the analytical report of the *British Medical Journal*, is too often decidedly not of the nature and quality that it should be. On examination of some ten or twelve advertised brands, not all of English origin, only one was found to contain the proper proportion of cream. The majority of the samples appeared to be only condensed skimmed milk. In these samples the proportion of fat was only about 0.5 per cent., whereas in the condensed milk of the Anglo-Swiss Company (Milkmaid brand) the proportion is over 10 per cent. Condensed milk is frequently recommended by medical men as an important item in infant dietary, and it behooves them to be careful to distinguish the good condensed article from the bad. Of recent years the consumption of condensed milk for this purpose in large towns has enormously increased, as the possibility of infection is entirely absent from the sterilized milk. On the other hand, many doctors believe that a good deal of the infantile diarrhœa—which often makes havoc with young lives—may be traced to the sugar in the condensed milk upon which they are reared. In connection with this I may mention that the Anglo-Swiss Company have introduced an unsweetened condensed milk, which is rapidly growing in favor. Before this the field was held by the First Swiss Company with their unsweetened condensed milk, which is largely used by the military hospitals in India and elsewhere.

The annual meeting of the National Veterinary Association has just taken place at Birmingham. About 140 veterinary sugeons attended, and the discussions were very animated. As usual at these meetings a small museum of drugs and instruments was arranged in an adjoining room, and the half-dozen firms exhibiting did a fair amount of business. Therapeutic knowledge is not a strong point with the average veterinarian, and an inspection of their journals suggests the comment that they take their therapeutics with their drugs from the wholesale druggists. Nothing specially new appeared in the department of drugs, but the titles of some of the proprietary preparations strike me as about the most uncouth I have ever met. "Tarcoptene" can hardly be described as an elegant title for a preparation recommended as an application for mange. "Augean Fluid" has certainly a classical air about it, but hardly fits a purifier. "Parophyroxia" has the advantage of looking very formidable and meaning very little, and would hardly lead one to suppose that it was a remedy for colic. By the way, colic is one of the most troublesome affections to successfully treat, according to experienced veterinary surgeons. One veterinarian will swear by chlorodyne ; another pins his faith to eserine in the form of hypodermic injection ; a third, after disparaging all other remedies, states that the injection of morphine and atropine is a specific. Among the surgical instruments exhibited there were several novelties. A tube to administer pills to dogs was favorably received, and any one who has interviewed a large dog with the purpose of administering a pill would appreciate the invention. Apparatus for forcing open the mouth of the horse and keeping it gagged was displayed on the skull of an animal and appeared very ingenious. Messrs. Arnold & Sons, of Smithfield, London, had the largest and best display of instruments, although all the drug firms represented at the exhibition displayed surgical instruments.

The fatal error made by an assistant to a Midland firm of wholesale druggists of putting up strychnine for phenacetine is being widely discussed, and all the usual foolish suggestions are being made by irresponsible journalists. How the muddle occurred will probably never be satisfactorily determined, as the bottle contained both phenacetine and strychnine. It is reported that the wholesale firm will have to pay compensation to the extent of at least $20,000, as two lives have been lost and the retail chemist suffered severely in loss of business. Nor is this the extent to which they will lose, as the error will, no doubt, shake the confidence of many of their customers. It is easy to point out defects in the very best system of storing and putting up poisons that the wit of man can devise. After all, it comes back to the personal element, upon which everything really depends. The most complete system depends for its carrying out upon the assistant or foreman or manager, and this is the uncertain element. In many dispensing establishments it is a stringent rule that two assistants shall always check the operation of weighing up poisons such as arsenic, strychnine, etc. Probably this system, if carried out with scrupulous exactitude, is as good as can be arranged. But whether it is possible to do this in the wholesale, where a man may have to put up 100 1 oz. bottles of strychnine for an export order, is a very different matter, and about which it is difficult to decide. The great evil in our trade is the rapidity with which the awe of poisons is transformed into careless indifference, merely because of the constant handling. There can be very little question that it is here we find the marked superiority of the qualified chemist over the unqualified. The former has the knowledge of the dose, the effects of poisoning, and the antidotes more or less always in his mind, and the fact that he is alone authorized by law to sell these articles carries special weight. The unqualified man may be, and very often is, densely ignorant of any of these circumstances and properties which hinge round a poison—hence the difference in the attitude of each.

The meeting of the British Medical Association will not be characterized next week by any special festivities. It is true that a fête is arranged in the botanical gardens and a conversazione at the Imperial Institute, but the corporation of the city of London has declined to assist in the welcome, and the Guildhall reception has, therefore, been abandoned. This is very unfortunate, as the country and foreign visitors would have enjoyed, and doubtless expected, some special favor from the metropolis of the empire.

Relative Volume of Powders.

To determine the relative volume of powdered preparations, take a small round measure of about two decimetres in height, and one and a half centimetre in diameter, which must be graduated from the bottom upwards in cubic centimetres ; put a small amount of powder into the vessel by means of a funnel made of black glazed paper, and tap the measure against a rigid surface until after one to two minutes the volume of the powder does not diminish. Powders which have become aggregated must, of course, be repowdered ; if the number of the observed cubic centimetres is divided by the weight in grammes of the powder taken, a number is obtained which Glückmann (*Zeitschr. d. Osterr. Apoth. Ver.*, 1895, 214) terms the relative volume. By means of this volumetric method, the approximate nature of certain preparations can be indicated (*Phar. Cent.*). — *Pharmaceutical Journal.*

Correspondence.

The Educational Side.

Editor Canadian Druggist:

Dear Sir,—The criticism my paper received was just as I expected. Before going farther, I wish to say that there is no one less likely to speak ill of a liberal education than I am. But I make a distinction between true education and mental cramming. The former is the drawing out of the mind and its powers. It shows itself in original thoughts and actions, and practical education cannot be gained without actual contact with persons and things. Cramming, on the contrary, is simply the memorizing of what others have said or done; it produces mental dyspeptics, and those who think work a disgrace. It is gained by induction rather than conduction. Much better, then, it is to have no mind at all than one which is useless, or is filled with that which helps no one.

My critic says it would not be right to have the profession open for all. Thus he shows his selfishness and his fear of competition. He speaks in a slurring way of the ditcher, and there he shows his disinclination to work.

"A.M." thinks this profession of ours is looked down on by outsiders. If it is, the reason is plain. The majority of druggists are selfish and small, because they are not educated, but crammed. He says "lowering the matriculation standard would entice more into the business"; but if the apprenticeship were seven years, I think it would keep out all but those who were willing to work. The tendency in the majority of young people nowadays is to go to school, that they may learn to get a living without much work. Pharmacy, however, is an art, and, therefore, those who choose the profession should be practically trained.

My friend calls me a fossil, and thinks I wish to put off study. Such is not the case, for, although I have been but a little over two years at the business, I have passed the junior course at the Ontario College of Pharmacy, and have other accomplishments in pharmacy. I am employed in one of the largest and busiest drug stores in Toronto; my hours are 8 a.m. to 11 p.m., yet I find time to learn a little of the theory, as well as the practice, every day. The critic is right in saying I was not crammed on entering the business. I had only a fair education (paid for by hard work), and I am glad of it, for had my head been filled with useless trash, as is taught in most of the higher schools, I would not have been able to mentally absorb what I see in my daily work. Those apprentices who, as you say, postpone their studies, are sluggards, and probably would not learn the business in seven hundred years; but such men will get into all professions, and that is all right. They are dark lanterns; they make the bright lights seem still more bright.

Now, as regards soup work, as "A.M." calls it. I think some apprentices never properly learn even that part of the business. I have a young man under my charge who has been "in the soup" for nearly nine months, and cannot wash a bottle properly yet.

My reason for believing in an extension of time to cover the college course is because the majority of students who take the training do not appreciate its value. It is given to them so fast that they cannot mentally assimilate it. They may remember it for a short time, but after the examinations are over the majority soon forget, and very few ever put into practice what they have learned.

As regards blunders, I know of a young man who has been through the university and has excellent *mental cramming*, yet cannot hold as good a place in a drug business as I do, simply because of his blunders. He has to be watched more carefully than any other dispenser in the store in which he is engaged.

Pray tell me, of what use is Latin? I think it only helps to deceive and hoodwink the public. You speak of keeping abreast with the times; then why waste energy learning an old-fashioned, dead language? When you have mastered English as well as you can, without Latin, then it is time to think of something else.

Perhaps the time for druggists to prescribe is a little distant, but, my poor pessimist, you "must learn to labor and to wait."

Honest, intelligent, and energetic men or women never had nor never will have a better chance to secure profit for their labors than now. But if you are trying to live without "toiling or spinning," you will find you are no lily of the valley, and cannot succeed in these days.

In conclusion, I must say I shall be pleased to hear from you again, or others, who would like less selfishness in human nature, more practical education, and equal rights for all.

An Apprentice.

Toronto, July 7th, 1895.

National Wholesale Druggists' Association.

The following preliminary notice has been issued:

Dear Sir,—At this commencement of the vacation season, I desire to remind you that the twenty-first annual meeting of the National Wholesale Druggists' Association will be held in the city of Denver, Colorado, commencing Monday, September 2nd, next.

I trust you will so arrange your affairs as to be present at the meeting in person if possible, or by an accredited representative if you cannot yourself attend.

You are requested to bring before the meeting of the association all matters connected with the interests of the trade, on which you believe united action desirable, and are reminded that the chairmen of various committees will be glad to receive communications in regard to the subjects entrusted to them for investigation and report.

Arrangements for transportation are in the hands of an able committee, of which Mr. John Peters, of New York, is chairman, and from him you will hear in due course.

Our meeting in Denver will doubtless draw a large representation from the Pacific slope, and the Western and Central States. It is my earnest hope that the east and south may be fully represented, and that our first meeting in the city of Denver may be characterized by the presence of a larger body of visiting members than ever before.

The Committee on Entertainment expect to provide an attractive programme which will include favorable arrangements for a tour in the world-renowned scenery of the Rocky Mountains. Mr. W. A. Hover, chairman of this committee, will issue a circular in relation to this at a later date.

Trusting that with this reminder before you, you will be able to make arrangements to attend the meeting in person, I am,

Very truly yours,

Thos. F. Main, President.

Per A. B. Merriam, Secretary.

Minneapolis, June 24th, 1895.

Concerning Ricine.

Ouchinsky, in studying this alkaloid (*Medical Science*, January, 1895), describes it as a toxic substance contained in the castor bean; it is found in the oil prepared from them when the process has been imperfect. Stimark places this substance among the albuminous ferments of the order of phytalbumoses; the author concurs in this opinion. On cold blooded animals ricine has but little action; warm-blooded animals are very susceptible to it, a very small dose proving fatal. It acts more rapidly when exhibited by the stomach than when injected subcutaneously. The temperature rises to 104° F., to fall again below normal. The heart continues to beat after the cessation of respiration. At the autopsy the intestinal mucous membrane is hyperæmic, dotted with punctiform hæmorrhages; the liver, kidneys, and spleen are gorged with blood; the intima of the blood vessels show many spots of hyaline degeneration.—*Rev. Int. de Méd. et de Chir. Prat.; Therapeutic Gazette.*

Cause of Death.—According to the census of 1890, of every 10,000 deaths in the United States one will be from calculus, 35 due to Bright's disease, 40 to fevers other than typhoid, 59 to rheumatism, 70 to scrofula, 130 to cancer, 140 to apoplexy, 148 to whooping cough, 160 to dysentery, 190 to meningitis, 220 to scarlatina, 246 to ague, 250 to convulsions, 310 to typhoid fever, 350 to heart trouble, 480 to diphtheria, 880 to diarrhœa, and 1,420 to phthisis.—*Medical Age.*

3 GOOD SELLERS

VELROSE

SHAVING CREAM
SHAVING STICK
BARBER'S BAR

PAY YOU WELL. PLEASE YOUR CUSTOMERS

ATTRACTIVE COUNTER ARTICLES

Order Sample ½ dozen from your wholesale house to come with next order
We supply Samples for free distribution with first orders.

THOS. LEEMING & CO.

MONTREAL

FRONT AND BACK VIEW

AMERICAN SILVER TRUSS

MANUFACTURED BY—
The Smith Manuf'g Co., - Galt, Ont.

The Silver Truss

IS A NEW INVENTION,
NEW IN PRINCIPLE,
NEW IN DESIGN,
NEW IN APPLICATION,
and the MOST PERFECT KNOWN.

The great success of this Truss in holding with comfort all kinds of hernia, whether adults, youths, or infants, all over Canada, the United States, and Europe, is phenomenal. They have been adopted by leading hospitals, surgeons, and rupture specialists of the United States, and by Westminster and Guy's Hospitals, London, Eng. No greater recommendation could be accorded any appliance than its adoption by the physicians and surgeons comprising the staffs of these hospitals, which rank among the largest and best in the world.

MANUFACTURED BY

THE SMITH MANUF'G CO., GALT, ONT.

LITTLE'S PATENT FLUID

NON-POISONOUS

SHEEP DIP AND CATTLE WASH.

For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

☞ 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at **$1.00**. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.

TRADE C 6 H 5 MARK

Little's Soluble Phenyle

DEODORISER & ANTISEPTIC

NEW DISINFECTANT.

FOR UNIVERSAL USE

CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and $1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton, and London, Ont., and Winnipeg, Man.

WE GUARANTEE
TO CURE
PILES CHASES OINTMENT PILES
SKIN ITCH ECZEMA SCALD HEAD
BLACK HEADS & ALL
ITCHY SKIN DISEASES

ONTARIO VACCINE FARM

Pure and Reliable Vaccine Matter always on hand. Orders by mail or otherwise promptly filled.

10 Ivory Points, $1; 5 Ivory Points, 65 cents; single Points, 20 cents. Discount to the trade.

Address all orders—VACCINE FARM,

A. STEWART, M.D. Palmerston, Ont.

JOSEPH E. SEAGRAM

Waterloo, Ontario.

MANUFACTURER OF

ALCOHOL

Pure Spirits

Rye and Malt Whiskies

"OLD TIMES" AND "WHITE WHEAT"

IT PAYS TO HANDLE

Le Vido

Water of Beauty.

A true specific for all kin Diseases

BECAUSE

It gives satisfaction to your customers.

It is a reliable, safe, and sure preparation.

It has been on the market for 25 years.

It is handsomely put up and extensively advertised.

It gives you a fair profit.

Order now through your jobber.

OUR SPECIALTIES

Boulanger's Cream Emulsion.
Dozen $4.00 — Sold at 50c.

"Le Vido" Water of Beauty.
Dozen $7.00 — Sold at $1.00

Dr. Scott's Pile Cure.
Dozen $1.50 — Sold at 25c.

Injection Wattan.
Dozen $5.00 — Sold at 75c.

Dermatonic Complexion Powder.
Dozen $1.75 — Sold at 25c.

THE MONTREAL CHEMICAL CO., MONTREAL.

Laboratory,
St. Johns, Quebec.

BRAYLEY, SONS & CO.

Wholesale Patent Medicines

43 and 45 William Street, - MONTREAL.

OUR SPECIALTIES:

TURKISH DYES.
DR. WILSON'S HERBINE BITTERS.

Sole Proprietors of the following:

Dow's Sturgeon Oil Liniment
Gray's Anodyne Liniment
Dr. Wilson's Antibilious Pills
Dr. Wilson's Persian Salve
Dr. Wilson's Itch Ointment
Dr. Wilson's Sarsaparillian Elixir
French Magnetic Oil
Dr. Wilson's Worm Lozenges
Dr. Wilson's Pulmonary Cherry Balsam
Dr. Wilson's Cramp and Pain Reliever
Dr. Wilson's Dead Shot Worm Sticks
Nurse Wilson's Soothing Syrup
Clark Derby's Condition Powders
Wright's Vermifuge
Robert's Eye Water
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Agents for Canada.

A Consideration of the Pharmacist of To-Day.*

By Dr. H. M. Wheelsley, Ph.G.

Mr. President, Honorable Trustees, Fellow Teachers, and Friends of Pharmacists: Pardon me, ladies and gentlemen, for the apparent presumption on my part in addressing you as friends of pharmacists. For such must I consider all interested parties who come here this evening for the laudable purpose of witnessing the graduation of these young men, who are just entering upon the discharge of the difficult and exacting duties which make up the routine life of a competent pharmacist. I esteem it a great pleasure, as well as a delightful privilege, to have the opportunity of presenting to you this evening the greeting of the Faculty and Board of Trustees of the St. Louis College of Pharmacy, which has for twenty-nine years been numbered among the worthy educational institutions of our city.

No doubt some of you have special reasons to be deeply impressed with the feeling that this is an occasion for rejoicing. For many it marks an event in the successful progress of a son or brother. Possibly a few of you may justly claim in our class of graduates a young man who is neither a son nor a brother, but who may some day bestow upon you a name and present you with an undivided interest in a new pharmacy. Be this as it may, you cannot help being considered as friends of pharmacists.

This evening is certainly a time for enjoyment. It marks a period of intellectual victory over the numerous problems found in a college of pharmacy curriculum. I am glad to see all entering with just zeal and pardonable pride into the spirit of rejoicing and jubilance evidenced by those who have recently received permission to be addressed as pharmacists. Far be it from my purpose to detract one iota, or in any manner lessen the peculiar pleasure which the exercises for this evening afford you.

WHY THE PUBLIC SHOULD APPRECIATE THE PHARMACIST.

Opportunity, however, begets temptation, and I cannot withstand the temptation to make good use of this opportunity for impressing you with the fact that no one ever assumed greater responsibilities than those voluntarily accepted this day by the members of the large graduating class. In the practice of their profession these young men will find the most deadly remedial agents known to science becoming familiar objects to them, to be frequently manufactured and daily dispensed. The most skillful, careful, and learned physician will intrust them with the precious prescription, containing, as it does, the practical outcome of the practitioner's entire medical training and erudition. A single mistake in dispensing the order may mean the death of the patient, the loss of a precious human life. It is the pharmacist who ever stands guard at the narrow gateway between the wisdom and rare skill of the physician and the wonderful powers of all known therapeutic agents. Do you wonder that the pharmacist often looks serious, and his face is frequently careworn? Are you surprised that he compounds the prescription behind the guarded dispensing case in privacy and silence? Are you startled to learn that, with one or two exceptions, every state and territory in the Union demands that a person shall show proof of possessing the proper pharmaceutical skill and knowledge before conducting a drug store? Can you realize my meaning when I say that these young men whom you have seen graduated to-night will hold in their hand the lives of the greatest and best citizens of the community in which they practise pharmacy? Do you doubt for a moment my assertion that on no one's shoulders rest graver duties or more serious responsibility than those that bend the erect form of the pharmacist as time marks the furrows of trials and tribulations on his brow? True it is that the world owes no man a living, but every man, woman, and child who has a prescription filled owes a life to the judgment, training, skill, care, and conscientiousness of the pharmacist who dispenses it with the prescribed amount of the proper ingredients, conforming to the required strength and standard quality. Thus the pharmacist labors to give his customers

"The most desirable gift of humanity, a sound mind in a healthy body."

THE PUBLIC SHOULD BEFRIEND THE PHARMACIST.

In view of these facts, may I not feel justified in urging you to be friends of pharmacists, not only for to-night, amid the fragrance of flowers, the inspiration of music, and the enthusiasm of youth, but for all time to come? This evening the young men most fully appreciate your presence and highly value your good will. To-morrow they will be pharmacists ready to solicit your material support in the practice of their profession. Shall I sicken to-morrow that I may have a prescription filled, do you ask? Oh, no, not that, for it is health that we wish you, and disease that the pharmacist aids the physician in banishing. What I do request is that, when necessity compels you to visit a drug store, you will always seek the services of a competent pharmacist, and, if possible, patronize one who is a graduate of a college of pharmacy; for he will surely be registered in accordance with the laws of his state. At any rate, ascertain positively that your pharmacist has a certificate from the State Board of Pharmacy, which shows his legal right to fill your prescription. Lend not your support to the druggist who makes his store a modern notion bazaar, but patronize the pharmacist whose skill, deliberation, and professional care combine and inspire you with confidence. Very strange it is, but equally true, that some people refuse to trust even a cheap watch to any but the most skillful of jewelers, but they unhesitatingly deliver the far more intricate and delicate mechanism of their own bodies to quack doctors and blatant druggists. I am at once convinced and gratified, by the intelligent expression on your friendly countenances, that none within the hearing of my voice will ever be so reckless; therefore, I only implore you to bear in mind my words and counsel with your friends who are less wise. You must strive to make them realize that all honor is due the educated, intelligent, conscientious, and vigilant pharmacist of to-day.

I trust you have followed me in these few words of introduction. I desire that you also realize the most hearty welcome we extend on such an occasion as this, filled as it is on all sides with pleasurable interest.

I must now conform with the time honored custom which requires the valedictorian to counsel with the new graduates. No doubt they feel that we, who were their teachers, have counselled with them often and long during their college days. To-night, however, we meet them, not as professor and student, but as fellow-pharmacists, and as such I shall endeavor to address them.

ALL PAY HOMAGE TO THE GRADUATING CLASS.

Members of the graduating class, I am not surprised that you are proud to-night, you, who are the very centre of attraction. This intelligent audience came to see you graduate; the Board of Trustees of the St. Louis College of Pharmacy assembled at your bidding; the faculty, whose members have lectured you for two years past, responded to the call of the students. So it is no wonder that you are smilingly proud and consciously happy as you clasp the long-coveted diploma in your hand. A clear conscience assures you that the document has been justly earned, and a feeling of honorable self-gratulation must come with the thought of the services you are to render humanity. Permit me to congratulate each one of you on the good fortune you have enjoyed, as well as sound judgment evidenced in selecting this institution of learning for the purpose of obtaining your college training. I need not remind you of its complete equipment of facilities for instruction, the corps of earnest teachers, and the board of watchful trustees. But now that you are graduated, I must impress on you the fact that of those who have preceded you in receiving the diploma of the St. Louis College of Pharmacy, many have attained prominence in the list of American pharmacists. Some of their examples should inspire you to great and good work. The knowledge of their achievements must be an incentive for earnest efforts on your part. We shall expect the class of 1894-95 to add new lustre to the fame of your fond and watchful *alma mater*.

*A valedictory address on behalf of the faculty of the St. Louis College of Pharmacy. Delivered at the 1895 commencement exercises.

PHARMACY IS PROGRESSIVE.

I must now awaken you from those pleasurable thoughts and mar the happy dreams by some of the stern realities of the life before you. Pharmacy is a progressive calling, and the profession both ancient and honorable. The word "progressive" means "ever changing," and you must most fully realize this fact.

PHARMACISTS DO NOT BECOME RICH.

Among those who will discourage you are some individuals with the mournful cry, that pharmacy is an overcrowded profession, while they will lugubriously point out that the drug business has long since been cut to pieces by the sharp knife of close competition. I misjudge your God-given talents and ambitions if you are seeking a profession which is pro vided with plenty of room at the bottom. Your good judgment and natural intelligence would inform you that such a calling must be unworthy of your earnest attention. This world is crowded with struggling humanity, and the majority of human beings cherish the ambition to better their condition, while many are ready to assist their fellow-men.

Pharmacy is truly a crowded occupation, but we have none too many good, competent pharmacists. The proverbial "room at the top" of pharmacy contains ample accommodations for all of you. Just qualify yourself to use it. The cut-rate competition condition of the druggists is not a theory but a condition, with which you must have had some familiarity, nor can I otherwise than portend for the future a continuance of the same state of affairs. The purely commercial side of pharmacy is slowly, but surely, slipping away, because pharmacy is more of a profession than a trade. It does not require a professional education on the part of a pharmacist to hand out patent medicines any more than it does medical advice and skill, or even the possession of common sense, on the part of the customer who fearlessly gulps them down. The majority of the so-called druggist's sundries are so only by custom. This class of goods is now finding its place as dry goods, hardware, and stationer's notions. The physician is as much entitled to a professional fee when he sells his horse or house and lot as is the druggist to a professional price on such goods. Thus you must look with greater care to the professional side of pharmacy. Your prospects for accruing great wealth are not bright. Professional services are never compensated by filthy lucre. They are measured by a higher and nobler standard. You must, like the physician, feel that much remuneration is derived from the greatest of all pleasures, the development of the intellectual faculties and the encouragement and distribution of thought. We must, with Lowell, feel that

"Before man made you citizens,
Great Nature made you men."

This, with the feeling of satisfaction over the good you render humanity, must constitute the major portion of your riches. To the true pharmacist this feeling becomes a human instinct, and as a real enjoyment is such an income to many people. But it does not require a Supreme Court decision to determine that you need not include this class of receipts when making out your income-tax returns. In this respect they are as exempt as President Cleveland's salary. The daily sales in your store, like the doctor's collections, will pay your living, but not build fine residences or accumulate large bank accounts. If you feel that you are so constituted by nature that you cannot be content with such a life it is not yet too late for you to select some more congenial pursuit, but, go where you will, there will always be plenty of competition to discourage the weak and vacillating person.

ALWAYS DISPENSE THE ARTICLE PRESCRIBED.

The pharmacist of to-day has many perplexities to mar the peace of an unruffled life. Among those that I must mention is the odium cast on the profession by a few unscrupulous persons who have no regard for justice, the dictates of right, or the value of human life. They know not the voice of conscience. Pharmacy, like every other profession, must support its scapegoat, whose only ambition is to make money, and with whom the end always justifies the means. They are with us even if destitute of a place and true function in the profession. The ministry has its hypocrites, the medical profession the only too well-known "quack," and pharmacy, alas, we must confess it, the man who dispenses not the article ordered in the prescription or by the customer, but supplies a similar article, in appearance at least, which costs him less money. I feel that the world does not mete out sufficient justice to punish this class of miscreants who trifle with human life for a few paltry dollars. Do not let these leeches discourage you, for the standard of pharmacy will continue to advance in spite of them.

MANUFACTURE YOUR OWN PREPARATIONS

While my views on substitution, as just explained, are unequivocal, I am convinced that it is not only the privilege, but also the duty of the skilled pharmacist to acquaint physicians with the superior quality of the products of his own laboratory. No law, either legal or professional, relegates to any class of manufacturers the sole right to produce elegant preparations. With the National Formulary for a guide and the resources of your pharmaceutical training, you are eminently fitted to prepare unofficial goods of superior quality. If you lose the opportunity do not blame others for your negligence. The true pharmacy of to-day fits into a period of the world's history where a wonderful impetus is experienced in all systematic and careful scientific investigations. Pharmacy is a fruitful field for the practical application of chemical and physiological scientific truths. The initial mysteries of chemistry and pharmacology have been disclosed to you while in college. It only remains for you to utilize them in your daily vocation. Members of a profession are universally acknowledged to be poor business men. The decadence of the druggist as a tradesman is in harmony with the evolution of the professional pharmacist. Translate the writing on the wall, catch the inspiration of the times, and make use of the training you have received. You are now on the road to progress, and I implore you to travel in the right direction.

DO NOT DEPRECIATE THE VALUE OF PRACTICAL EXPERIENCE.

You have been required to spend four years' time as an apprentice before you become eligible for graduation. It is now a well established biological fact that, other considerations being equal, animals develop and improve with each succeeding generation in proportion to the length of the period of infancy or dependence on their parents or parent. This is the time during which the child learns not only what its parents were taught as children but the additional knowledge and skill gained by their personal experience. Your apprenticeship in pharmacy compares with the period of infancy in the growth of animals. Be wise and never attempt to cut this short in training your apprentices. A very pretty fable tells us that after the flood the birds found it necessary to teach their young birds how to build nests. The impatient and impetuous children watched the process of construction until the nest was half finished and then said, "We have the idea, we understand the theory of construction, and can get our 'practical experience' after graduation," so away they flew. With plenty of theory but no practical experience they constructed their own nests until half way built. They were then unable to complete them, and were forced to make the unfinished nests serve their purpose as well as they would. Our industrious humming birds and the handsome Baltimore orioles and a few other wise ones, however, were more patient in receiving instructions from their parents. They completed their apprenticeship and served out their period of practical experience before graduation. As a consequence we find these birds to-day building complete nests, provided with adequate roofs, while the homes of the other birds have no covering to protect them from the inclemency of the weather. Some misguided pharmaceutical writers have strayed from the system of right thinking and commend the acts of these foolish birds. These would feed you on theory and graduate you without practical experience. Listen not to their special pleadings or your storehouse of pharmaceutical knowledge will be like the bird's nest without a protecting roof.

Why Not Put Up your Own

WHEN YOU CAN BUY

Complete Containers

AT REASONABLE PRICES?

You Can Save the Manufacturers' Profit!

For Samples of Containers with Prices, for putting up or packaging any of the following goods, drop us a card:

Condition Powders,
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Boxes and Wraps.
Compound Licorice Powder,
Boxes and Wraps.
Powdered Borax,
Folding Cartons.
Cream Tartar,
Folding Cartons.
Soap Bark,
Folding Cartons, or Cartons and Wraps.
Epsom Salts,
Folding Cartons, or Cartons and Wraps.
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Cough Drops,
Folding Cartons—2 ounce and 4 ounce.

Or if there are any other lines you wish to put up, write us about them.

LAWSON & JONES,
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SIMPLE, BUT SURE!

Somerville's M. F. Cough Chewing Gum

FIVE CENTS PER BAR
TWENTY BARS ON A HANDSOME STANDING CARD

THE WHOLESALE TRADE HAVE IT

PRICE 65c. PER CARD

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School of Pharmacy OF THE University of Michigan

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Lectures and Recitations are combined with Laboratory work throughout the entire course. Practical work in compounding prescriptions, assaying, testing and standardization of drugs.

A course of TWO YEARS for the degree of PHARMACEUTICAL CHEMIST. A course of FOUR YEARS for the degree of BACHELOR OF SCIENCE IN PHARMACY.

A. B. PRESCOTT, Dean. A. B. STEVENS, Secretary. Address at ANN ARBOR, MICH.

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Baby's Own Soap

Is cut for advertising purposes, but you make a great mistake in not keeping it, as it carries trade with it.

Ox Gall Stain Soap

An attractive package, tin-foil and carton, ½ doz. in box. A most wonderful preparation for removing stains of paint and grease from carpets, clothes, etc., and restoring their natural color.

The Albert Toilet Soap Co. MAKERS AND SELLERS. Montreal.

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WILL FIND IT PROFITABLE TO ADVERTISE IN

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GERMAN ARMY **PILE REMEDY**

Each One Dollar Package Contains

Liquid, Ointment, and Pills.

GOOD SELLER.
GOOD MARGINS.
WELL ADVERTISED.

THE ONLY CURE FOR PILES

Write us to mention in your daily or weekly papers that *GERMAN ARMY PILE REMEDY* may be procured from you.

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TANGLEFOOT

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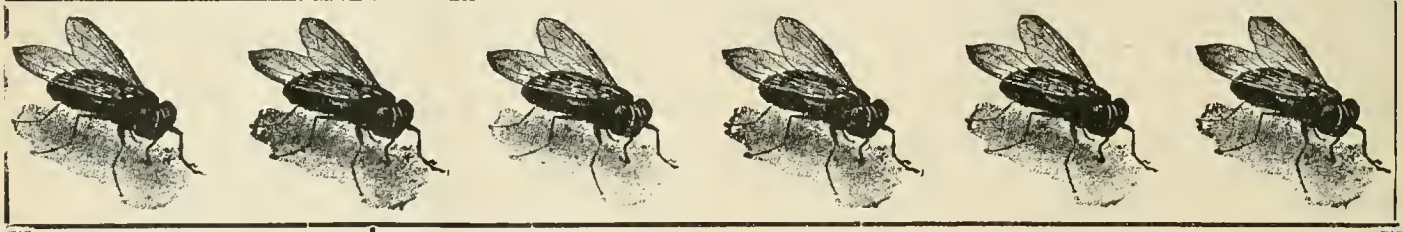
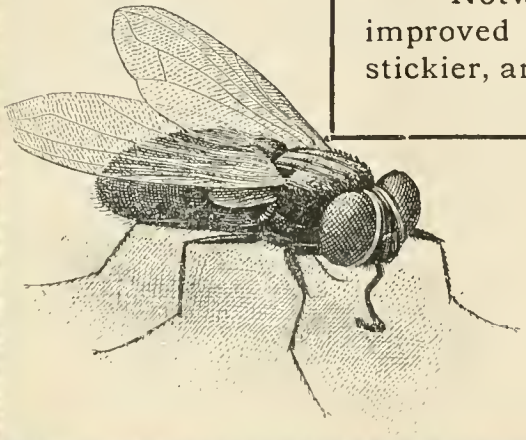


SELL THE BEST YOU CAN BUY



- - 1895 - -

ALL TANGLEFOOT is now made with the new Corrugated Border. This Border is an improvement on any of its predecessors—it restrains the sticky composition more securely, it opens more readily, and remains on the sheet. Always acts the same under all conditions. It is the perfection of Borders. (Patented Feb. 19th, 1895.)

Each case contains five of the New TANGLEFOOT Holders, with slides to raise the center of the paper. A sheet presenting a convex surface catches flies much faster than one lying flat. These Holders are nicely wrapped ready to hand out to a good customer for a present.

Notwithstanding the reduction in price the quality is improved in general. The paper is a little stronger, a little stickier, and will remain sticky a little longer.

Prices for the Regular Size, 1895.

LESS THAN ONE CASE, - 50 CENTS PER BOX
ONE TO FIVE CASES, - - $4.75 PER CASE.
FIVE CASES AND OVER, - $4.50 " "

Each Box contains 25 double sheets.
Each Case contains 10 boxes.

BE GOOD MEN AND WORTHY CITIZENS.

Graduates, before saying to you the word "farewell" and leaving each one to seek the location that fate has willed him, I consider it my duty to express the feeling of confidence that the members of the faculty have in you as men. We know that you are competent pharmacists and we feel that you will never forget your share in the responsibility for the good name of the profession you have just entered. I need not remind you that the creditable record of St. Louis, of which we are so justly proud, has been earned by her citizens. So it is with the St. Louis College of Pharmacy, whose students and graduates, as well as faculty and trustees, have earned and now maintain its envied reputation. You will ever remain graduates of the college. No divorce proceedings can ever sever the relationship. Bear this well in mind and evidence your gratefulness to the institution by living the lives of good men and worthy citizens as well as professional pharmacists. By so doing when the time comes for you to pass away, as it must for each one, your friends will say,

> "A combination and a form indeed
> Where every god did seem to set his seal
> To give the world assurance of a man."

Practical Value of Pharmacognosy.*

By WILLIAM S. DISBROW, New Jersey, N.J.

Properly speaking, the whole history of the drug, its origin, source, varieties, commercial relations and natural history are to be considered in referring to pharmacognosy; but, as generally understood, and as applied practically in our colleges, it relates to the biological or histological structure of drugs, and the other considerations are relegated to materia medica and botany. The first lectures on this subject were delivered by Martius, at the University of Erlangen, in the year 1825, and the definition, as given by him at that time, was that pharmacognosy is to be regarded as "a part of general materia medica, or that science which relates to the examination of the medical substances derived from the three kingdoms of nature, with a view to ascertain their sources and quality, to test for their purity, and to determine substitution and adulteration." It will be seen that if we accept this as our guide, we should be led far into the domain of the collateral sciences, but I think, as we now understand it, we adhere to drugs of vegetable origin. Without the microscope we should have but a poor showing; for without understanding the elements of plant structure, how can we be expected to appreciate the principles? and what we are able to do to-day in the differentiation of drugs we owe to that instrument.

I remember, in my early pharmaceutical days, we were taught that the characteristics of a drug were those of a macroscopic quality—they were round or shapeless, soft or brittle, smooth or wrinkled, brown or some other color, depending upon the ability of the observer to distinguish color; never did we hear of the varied arrangement of wood bundles; the parenchymatous and prosenchymatous forms were a nebula, which always retained its misty character.

That was but fifteen years ago, in one of the best pharmaceutical colleges; then we were given bottled drugs, to taste, to smell, and to inspect with an air of utter helplessness; a microscope—a toy to be eased, and for inspection only. Now the science is recognized and appreciated; to it plenty of practical work is given, and it is second to none in practical importance, and is of infinite interest and beauty. Who among you can recognize one drug from another when crushed or powdered? (For I will concede that there are many general characteristics by which they may be identified without instrumental help.) By what method may this be done, if not by pharmacognosy? And if this may not be considered a science of utility to the pharmacist, I would like to know where we will find it. Pharmacognosy teaches the structural conditions of drugs, the arrangement of their elementary constituents, and how one differs from another; and to know a drug from the pharmacognostical standpoint is the only way by which it may be known.

Some of you may consider this all nonsense, and of no practical use, but I tell you you cannot get along without it; and the possessor of a brain so obtuse as to be unwilling to recognize it, and an eye so blinded as to be unable to see it, is not worthy of the profession to which he is supposed to bear allegiance, and he, and not the science, will be the loser.

To be a pharmacist, in its broadest definition, without some knowledge of this science would be like going to warfare with imperfect armament. You may appear like pharmacist or warrior, but the test soon comes, and it is but the fittest that survives. To be unable to recognize drugs with a definite precision in your daily labors is not only negligence, but criminal.

We should consider this subject, not only in its utility, but in its necessity, and if there are any among you who consider it as of value only in rounding out a curriculum, you are making the greatest mistake of your lives, preventing by your own mental astigmatism the enlightenment which others would have derived in its pursuit. Pharmacognosy is here to stay, our text-books are now filled with it, where but a few years ago no reference was made. Now, well executed drawings and micro-photographs illuminate where formerly all was dreary and dull. How many of us, during the idle moments which are so frequent in some of our stores, have wandered about aimlessly, wondering, perhaps, what is the matter with the times, and only considering how cheaply we can purchase the next lot of drugs, irrespective of how much they may be adulterated, and never considering how easily we could fit ourselves to identify readily and to prove their quality; for we must consider that to be worthy of the confidence of the physician, we must be able to give what is requested, and that in a condition of purity.

I imagine I hear some one remarking that to do all this necessitates microscope and time. This is so, but no more than is imposed upon the practitioner, far more busy than most of you. If you will make yourself superior to your fellow pharmacists, you will soon be rewarded by the public confidence. But if you do not, and are willing to be mere "hewers of wood and drawers of water," you will always remain so, for the day of mere selling of drugs is past, and modern pharmacy is fast pushing to the wall the laggard and the drone. Let us awaken to the value, to the utility of pharmacognosy, if for no other reason than that of mental enjoyment; you will find it to compete favorably with all which you may pit against it.

* Abstract of the proceedings of the New Jersey Pharmaceutical Association.

Druggists and Photography.

The purveying of chemicals is one of the important features of the business side of the art of photography, and as such is legitimately a part of the business of the druggist. Time was when the practice of this art was full of difficulties, its mysteries were beyond the ken of the ordinary person, its trade was confined to a narrow channel, and the druggist was content to let it remain so, looking upon the occasional sale of a few chemicals as the limit to which his interest in the business could extend. But that time is past. While everybody does not "take" pictures, the mechanics of the art have been so simplified that nearly everybody can. The proportion of people in this country who are now interested in amateur photography is so small, compared with the number who might be attracted toward it by proper means, that the business seems almost in its infancy, and the field is one which is invitingly open for exploitation by that class of people most fitted to work it—the retail druggist.—*Pharmaceutical Era.*

RECOGNIZED.—Henry Irving, the famous actor, whose face has, through advertisement and illustration, become familiar to many people, was one day at a seaside resort, when he noticed a little girl looking at him fixedly.

"Well, my dear," said he, "do you know who I am?"

"Yes, sir," was the shy answer.

"Well, who am I, then?"

"You are one of Beecham's pills."

And, indeed, his face had figured in an advertisement of the widely advertised pills.—*Exchange.*

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

AUGUST 15TH, 1895.

What is the Association Doing Now?

An association of the retail druggists of Hamilton Ont., and vicinity has been in existence for some time. They at one time held regular meetings, looked faithfully after the trade interests in their constituency, and the association was looked upon as a model one. In fact, the druggists of Hamilton have, as a rule, worked harmoniously together, and when any breach of good faith occurred, or any member of the fraternity stepped outside of the bounds laid down, he was immediately told to halt, and threatened with dire disaster in event of his refusal to reform. Cutting in prices was one of the evils which they particularly decried, and more than once have the "screws been put on" (so the speak) in order to teach the offender that he must keep in line. In July, 1885, a serious breach occurred, one of the druggists of the city having advertised cut prices. This had the effect of bringing out a strong protest from the remainder of the druggists of the city, addressed to the wholesale trade, and *signed by each individual member.* We are in possession of one of these letters, which we reproduce here:

Hamilton, Ont.,
July, 1885.

GENTLEMEN,—In accordance with a resolution of the Hamilton and District Drug Association, I send you the names in that association.

The members have pledged themselves to discriminate in placing their orders only with such houses as do not and will not supply cutting retailers in our district.

In taking this step, the association believe it is working as much in favor of the wholesale trade as the retailers, their object being that goods advertised at a fixed price, and printed thereon, should be sold at such price. And it is the hope of the association that they will have the sympathy and aid of the wholesale trade as far as possible.

Yours truly,
R. BRIERLEY,
Secretary *pro tem.*

Names of Members:

Garland & Rutherford,	Mark Mundy.
John A. Clark,	John M. Gerrie,
Harrison Bros.,	W. L. Smith,
A. Vincent & Co.,	Richard Brierley,
Arthur Boyle,	Wm. A. Howell,
R. N. Taylor & Co.,	J. A. Zimmerman,
Ontario Pharmacy (G.	T. Bingham),
D. Day Smith	H. L. Case,
A. Doherty,	J. A. Sutherland,
A. Calder & Co.,	A. Hamilton & Co.,
McGregor & Parke,	John A. Barr & Co.,

Accompanying this letter was the following from the secretary:

July 7th.

In sending you this document we wish you to observe that the name of—* is not there, and that he is the only one at present amongst us who is cutting prices and advertising to do so.

We intend that the terms of the accompanying resolution be applied to him until he comes into fair and honorable prices we all observe.

You will, therefore, please govern yourselves accordingly.

RICHARD BRIERLEY,
Secretary *pro tem.*

This strong protest had the effect intended. The offender soon came to terms, and, we believe, has since been, and is now, one of the most loyal of the pharmacists of that city. As is pretty generally known, there is more cutting in prices by the druggists of Hamilton to-day than in any other city or town in Canada. It was commenced by a firm outside the drug trade, but it has spread, so that every druggist in the city, without exception, cuts prices, and not only that, but some of them advertise themselves as cut-rate druggists, and more than one of those who signed the letter of protest to the wholesale trade in July, 1885, are amongst the worst offenders. What is the Hamilton District Association doing? Where is the protest to the wholesale houses threatening to "discriminate in placing their orders only with such houses as do not and will not supply cutting retailers"?

The notice sent in 1885 has never been withdrawn, although a later one in reference to a member of the association who was giving "chromos" free to his customers was declared cancelled. Are not the Hamilton druggists inconsistent in their action? Why should they not take steps, even at this late hour, to remedy the evil, not that exists in others, but amongst themselves? Should not these men, who protested so strongly in 1885, live up to their protests now? There is still hope for the drug trade of Hamilton it they will act in harmony, and have some respect for their own convictions. Let them make a determined stand in this matter and we believe good results will follow.

The American Pharmaceutical Association is holding its Annual meeting at Denver, Col.

*We have omitted the offender's name.

J. H. MACKENZIE, President of Council O.C.P.

The New Officers.

In the selection of Mr. J. H. Mackenzie as president, and Mr. J. McKee as vice-president, the council have chosen two of the hardest working and most deserving members. In their capacities as chairmen of committees in former years, and in general council work, they have shown an interest in their labors that betokens energetic and active work in their new offices. Mr. Mackenzie was first elected to the council in July, 1889, and Mr. McKee in August, 1888. Both have sat continuously for their different constituencies ever since.

Cod Liver Oil.

The present high price of Norwegian cod liver oil has had the effect of considerably advancing the value of the Newfoundland product. As is well known, the difference in price between these two products arises from the superior method employed in refining the oil in Norway. The "freezing process," which is the method used there, produces a much finer oil, with less color and more agreeable to the palate. There is no doubt if this process were more generally adopted in Newfoundland, an oil quite equal to the Norwegian could be produced, and the present seems a fitting time for its adoption, when both crude and refined oils command such remunerative prices. The only establishment, we believe, in the island as yet using this method of distillation is that of Munn & Co., at Harbor Grace, where it has been carried on on a large scale, and their oil has commanded a good figure.

WM. SEDGWICK
DEALER IN
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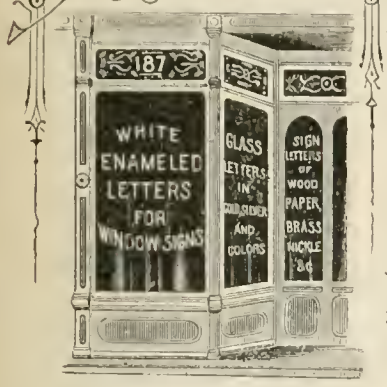
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At $8.00 per dozen delivered, you get a good profit of 50 per cent. No need to try to work off an imitation of them.

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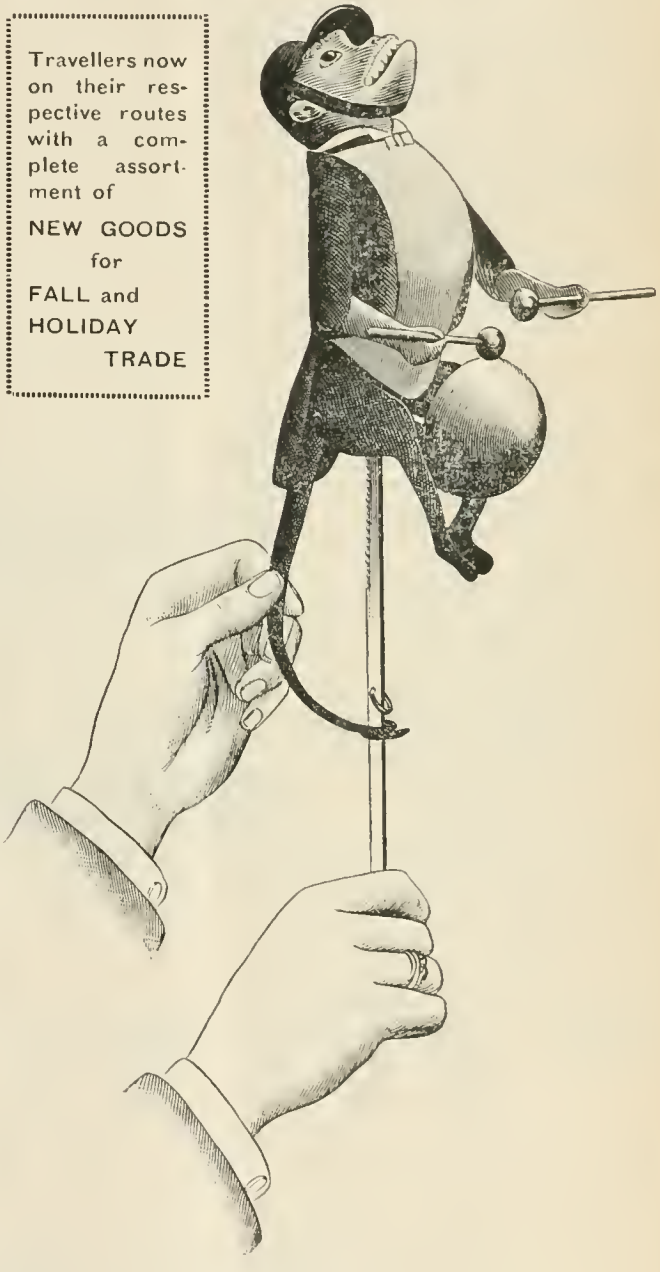
Travellers now on their respective routes with a complete assortment of NEW GOODS for FALL and HOLIDAY TRADE



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THIS PACKAGE CONTAINS FOUR FELTS.
DAVIS'
FLY POISON FELTS
NEVER FAILS
TO DESTROY
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SUPERSEDES
Fly Paper and all other
POISONS,
Being Convenient and
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DIRECTIONS.
Place one of the Felts upon a dish or plate; keep wet with water. Use only enough water to soak the Felt. Flies will drink the poisoned water off the Felt and die immediately,
Placez un de ces Feutres au-dessus d'un plat ou assiette; tenez-les humides avec de l'eau. Usez seulement assez d'eau pour temper le Feutre. Les mouches boiront l'eau empoisonnee, sortiront du Feutre et morront immediatement.
CAUTION.—Should the liquid be swallowed by accident at once administer in large doses, Lime Water, Flaxseed Tea, or Iron Rust, followed by an emetic and drinks of Milk or Flour and Water.
PRICE 5 CENTS.
MANUFACTURED BY
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Send order to your regular supplier. If they are out of stock, or do not handle, send direct to the manufacturers,

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This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis, and all diseases of the Chest.

Wine of the Extract of Cod Liver with Creosote

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CHEVRIER

Sold by all first-class Chemists and Druggists

The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

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THE CANADIAN SPECIALTY COMPANY

DOMINION AGENTS

TORONTO, ONTARIO

Ontario College of Pharmacy Council Meeting.

The regular semi-annual meeting of the Council of the Ontario College of Pharmacy opened at 2.30 o'clock on the afternoon of Tuesday, August 6th, 1895. President A. B. Petrie, of Guelph, took the chair, and was welcomed back by his colleagues after his recent trip to the antipodes. This being the first meeting of the newly-elected council, more than usual interest attached to the roll call, and a few moments were spent before business began in introductions and general exchange of courtesies.

Those present were, in order of districts, as follows: (1) Henry Watters, Ottawa; (3) John McKee, Peterboro; (4) C. D. Daniel, Toronto; (5) J. H. Mackenzie, Toronto; (6) D. H. MacLaren, Barrie; (7) A. Turner,* Orangeville; (8) G. W. Spackman,* Hamilton; (9) Simon Snyder,* Waterloo; (10) W. A. Karn, Woodstock; (11) J. F. Roberts,* Parkhill; (12) Harry Days,* Lucknow; (13) R. D. Scott,* Sarnia. Owing to some irregularity in the election no representative had been elected in District No. 2, and, consequently, every elected member was in his seat. Those marked with an asterisk (*) now take their seats for the first time.

The first business was to elect officers for the term of the council, and these were chosen as follows:

President, J. H. Mackenzie, Toronto. Proposed by Messrs. Karn and McKee.

Vice-president, John McKee, Peterboro. Proposed by Messrs. Turner and Spackman.

Both these gentlemen were elected by acclamation.

The registrar-treasurer reported that no legal election had taken place in District No. 2, and that under the constitution the council were empowered to fill the vacancy. Nominations were accordingly called for, and the names of Messrs. L. W. Yeomans, Belleville, and James H. Dickey, Trenton, were placed before the council. On a ballot being taken, Mr. Dickey was declared elected by a vote of 7 to 5, and the registrar was instructed to notify Mr. Dickey by wire, and request his immediate attendance.

The following committee was appointed to strike standing committees: Messrs. Karn, Watters, Daniels, MacLaren, and Scott, and the council adjourned to allow this committee to report.

Upon reorganizing, the committee reported the selection of committees as follows:

Finance—Messrs. MacLaren, chairman, Karn, Roberts, Snyder, McKee, and Days.

By-Laws and Legislation—Messrs. Watters, chairman, Roberts, Scott, Daniel, Spackman, and Turner.

Education—Messrs. Daniel, chairman, Spackman, Scott, Turner, Watters, Dickey, and McKee.

Infringement — Messrs. Karn, chairman, Days, MacLaren, Dickey, Watters, and Snyder.

Upon the motion of Messrs. Watters and MacLaren, this report was adopted without debate.

The report of the scrutineers who officiated in the recent elections was presented, and ordered to be filed.

Upon motion, Mr. Isaac T. Lewis, the respected registrar, was re-elected for another term upon the present salary.

The following officials were also appointed scrutineers: Messrs. Murchison and McCann; auditors, Messrs. James Watt and Hargreaves.

The minutes of the last semi-annual meeting were taken as read and approved.

Under the head of communications and petitions, the usual large batch of petitions from apprentices asking for extension of time, etc., were received and referred to the Committee on By-Laws and Legislation.

A letter was read from the Pharmaceutical Association of Quebec in reference to the question of forming a Dominion Pharmaceutical Council. The letter stated that in response to the initiative taken by the Quebec association all the provincial councils, with one exception, had expressed their sympathy and co-operation in the project. Encouraged by this, a special committee of the Quebec association has been appointed to draft a constitution and by-laws, and the result of their labors, in the shape of a bulky type written document, was enclosed. The council was invited to consider the same and advise the eastern association. Finally, the letter suggested that, in the event of the scheme going into effect, the first meeting of the Dominion Association be held in Montreal.

On the motion of Messrs. Watters and McKee, a special committee was struck to report upon this communication, said committee being Messrs. Daniel, Roberts, Scott, MacLaren, and Karn, with the mover and seconder.

The council adjourned at 4.30 o'clock until 10 o'clock Wednesday morning.

Second Day.

When the council reassembled on Wednesday morning every member was present. Mr. Dickey, elected the previous day from District No. 2, put in an appearance, and was introduced by the president and accorded a hearty welcome, which he suitably acknowledged.

After several routine matters had been disposed of, Mr. C. D. Daniel moved the following motion, notice of which had been given at the last meeting: "That all apprentices desirous of writing at the qualifying examination in May or December may do so if the term of their apprenticeship terminates by the time of the meeting of the council in the following August or February of each year, provided always that satisfactory evidence is presented to the council that the term of apprenticeship is completed between the qualifying examination and the next meeting of council. Students are requested particularly to note that they are required to attend the senior course, and that no part of the time spent at the senior course is allowed to count in the term of apprenticeship; and that all former regulations concerning this matter be hereby rescinded."

Mr. Watters seconded the motion, and, in amendment, Messrs. Roberts and Karn moved its reference to the Education Committee. The matter had been so fully discussed at the last meeting, however, that the council decided to dispose of it at once, and, after slight discussion, it was passed.

The registrar-treasurer, Mr. I. T. Lewis, presented his semi annual report, as follows:

Gentlemen,—I beg to report that since the 1st of February, 1895, the following medical practitioners have taken out registration, viz.: D. A. Muirhead, Carleton Place; A. Carmichael, Sundridge; J. A. Mitchell, Drumbo; P. D. Tyerman, Maganetawan; D. A. McCrimmon, Ripley; L. Lapp, Pontypool, for 1894; J. G. Clark, Meaford; Chas. A. Cline, Belmont, for 1890; C. D. Curry, Minden; W. D. Ferguson, Rockland; P. McLaughlin, Smith's Falls; C. M. Kingston, Everett; W. F. Eastwood, Claremont.

The number of applications of apprentices for registration has been 79, several of whom are in abeyance for the council to deal with.

The number of renewals issued since February 1, 1895, were as follows, viz.: 2 for 1889; 1 for 1890; 2 for 1891; 6½ for 1892; 14 for 1893; 107½ for 1894; 746½ for 1895; total, 879½.

I beg to submit a detailed statement of receipts and disbursements for the last six months, ending August 1, 1895:

Receipts.

To Cash balance Feb. 1, 1895	$ 41 98
Bank " " "	5,308 78
Renewal fees, $3,518; less rebates, $1,390	2,128 00
Registration fees	149 00
Poison books, diplomas, etc.	33 59
Teaching department	322 80
Appeal account	8 50
Examination fees	351 08
Roberts scholarship fund	78 32
	$8,422 05

Disbursements.

By Expense account	$ 251 40
Furniture	15 80
Interest account	376 45
Expenses council meeting	288 24
Library fund	16 13
Apparatus	27 00
Salaries	3,684 40
Supplies	295 93
Deposit fees	472 00
Sundries	109 36
Laboratory apparatus	41 52
Coal, water, and gas	195 31
Law expenses	20 00
Infringement account	234 93
Bank of Commerce, Roberts fund.	78 32
" " speciat	1,000 00
The synod	1,000 00
Cash balance $22.32	
Bank balance $292.88	315 20
	$8,422 05

The report was received, and referred to the Committee on Executive and Finance, as was also the report of the auditors, Messrs. James Watt and W. A. Hargreaves, which showed the following statement of assets and liabilities :

Assets.

College building	$ 33,551 82
Furniture	11,100 00
College lot	5,000 00
Outstanding fees, estimated	575 00
Supplies	320 00
Poison and liquor books	200 00
Cash balance	22 32
Bank balance	292 88
Bank of Commerce, special account	1,000 00
	$52,062 02

Liabilities.

Mortgage, the synod	$13,000 00
Interest to date	119 17
Salary account	125 00
Library fund	96 32
Sundry accounts	479 29
Balance	38.242 24
	$52,062 02

The council adjourned at 2 o'clock, and the afternoon was devoted entirely to committee work.

THIRD DAY.

All members of council were present when the proceedings opened on Thursday morning at 10.45 o'clock, with President Mackenzie in the chair.

After preliminaries, Mr. MacLaren presented the report of the Committee on Finance as follows :

Your committee have carefully gone into the accounts appended, amounting, in all, to $481.26, and recommend that they be paid.

Your committee have inspected the roof of the college, and deem it necessary to have it repaired at once. Your committee would recommend that the upper laboratory floor should be improved by laying a good hardwood floor over the present one, and that tenders be received for the said improvement, and, after the aforesaid tenders are in, that the chairman of the committee be authorized to see the work done at the lowest cost.

Your committee, being satisfied of the benefit from having the steam pipes covered with mineral wool, from those which were covered last winter, would recommend that the balance of the pipes be covered in a similar way.

Your committee would recommend that weather strips of rubber or felt be put on the windows, and also that the glass roof of the laboratory be repaired.

Your committee also recommend that an inexpensive clock be procured for each laboratory.

All of which is respectfully submitted.

D. H. MACLAREN,
Chairman.

The report was adopted on motion of the chairman and Mr. McKee.

Mr. Watters then presented the following report of the By-laws and Legislation Committee :

(1) Concerning Dan Campbell Worts, of Parkhill, your committee would recommend that the application be granted.

(2) *Re* application of Ernest Allen, of Belleville, your committee recommend that his apprenticeship date from the time the apprenticeship certificate was dated.

(3) George R. Wood, of Erin ; his educational certificate being unsatisfactory, his application cannot be entertained.

(4) Regarding the request of J. F. Whelan, your committee would recommend that the registrar be requested to advise him that apprenticeship served outside the Province of Ontario cannot be recognized.

(5) Concerning the request of W. H. Cooper, of Burk's Falls, your committee advise that his application be not complied with, and that the registrar be requested to write him in explanation.

(6) E. Ryan, M.D., under section 22, is liable for arrears.

(7) H. E. Hurlburt, of Thornbury ; the registrar has power to deal with this case.

(8) If George Graham, of Treherne, produces satisfactory evidence that his certificates were burnt, your committee recommend that the registrar forward duplicates on payment of the usual charges.

(9) On production of satisfactory evidence of the destruction by fire of his diploma, your committee recommend that the registrar forward to Mr. G. H. Golding a new diploma on receipt of usual charges.

(10) Herbert E. Edwards, of Cleveland, Ohio, is advised that his request cannot be entertained, and the registrar forwards to him a marked copy of the Pharmacy Act, and that only qualified pharmacists can participate in the profits of a drug business.

(11) F. G. Tremayne reports that his diploma was burnt, and the registrar is requested to grant a new one on receipt of proper evidence of loss.

(12) *Re* application of John McDougall, Strathroy, the registrar has power to deal with this matter.

(13) Your committee would recommend that the application of Ernest A. Dixon, Pembroke, be granted on production of satisfactory evidence that he possessed the necessary educational qualifications and had entered on an apprenticeship on November 4th, 1894.

(14 and 15) Applications of Norman B. Lander and J. F. Taylor, Hamilton, are referred to the registrar.

(16) R. S. Armstrong, Port Colborne. Your committee recommend that his apprentice be permitted to date his apprenticeship from September 17th, 1894, on production of evidence satisfactory to the registrar.

(17) R. A. Hunter, Listowel. Your committee recommend that the registrar grant a new diploma on production of proper evidence of the old one being burnt, and on receipt of usual charges.

(18) Byron Forrest, Toronto, is permitted to date his apprenticeship from March 8th, 1895, on production of evidence satisfactory to the registrar.

(19) George Reilly, Peterboro, on production of satisfactory evidence, may have his application granted.

(20) *Re* S. T. Hopper, your committee recommend that his request be not granted.

(21) Your committee recommend that the application of Edward G. Seyler, of Waterloo, be granted, and that his application date from March 11th, 1895.

(22) Your committee would recommend that the matter of William Bauer, Costa Rica, be laid over for further consideration.

(23) In the case of Ardagh Cundle, Barrie, we are of opinion that it cannot be dealt with until the February, 1896, meeting of the council.

(24) Your committee are of the opinion that the application of P. S. Maddock cannot be granted.

(25) The committee recommend that the application of C. H. Roberts, Paris, be not granted.

(26) The application of James Kelman for rebate cannot be entertained.

(27) Your committee recommend that the case of Dr. McDiarmaid, Hensall, be referred to the registrar.

(28) Your committee recommend that the case of J. D. Todd, Toronto, be referred to the registrar.

(29) In the matter of F. W. E. Keayes, your committee recommend that the application be granted.

HENRY WATTERS,
Chairman.

This report was also adopted without discussion, and the council adjourned for lunch.

In the afternoon, the first matter of interest was a notice of motion by Mr. W. A. Karn to amend By-law 15, so that the remuneration received by members of the council will in future be 5 cents a mile and $4 a day, instead of 4 cents a mile and $3 a day, as at present. In giving notice of this proposal, Mr. Karn remarked that the amended figures would be the limit allowed under the Act, and he thought they were all too low, being much less than the fees paid to governors of similar institutions. The matter will be considered six months hence.

Chairman W. A. Karns submitted the following important report of the Infringement Committee, being Report No. 1 :

Your committee would report that since the last meeting of the council a detective was employed to carry out the instructions of the committee with regard to infringements of the Act in the matter of illegal drug business and arrears of fees. We are pleased to report that his services proved of material value to the college in compelling many druggists to pay their registration fees who otherwise refused to respond to the notices of the registrar to comply with the Act.

He also succeeded in obtaining convic-

tions in six cases out of the seven brought to trial, viz.: F. W. Forshee, Florence, fined $50; W. Borrowman, Merlin, $20; E. A. Laflamme, Ottawa, $20; W. Boothby, Coe Hill Mines, $20; W. Cline, jr., Toronto, $20; W. Cline, sr., Toronto, $20. In the case of D. S. Bell & Co., Ottawa, the case was withdrawn on D. S. Bell paying costs of court and agreeing to retire from and remove his name from business; the sale of poison was made by a registered employee, who is the only person taking an active part in the business.

The Durham Pharmacy was also proceeded against, it should be mentioned, without the aid of the college detective, it having been considered unadvisable to send him to look after that case, as a former detective had,a short time previous to the action referred to, by his conduct, made it difficult or impossible to bring the case to trial. Unfortunately, the instructions given for the conduct of the case were not properly carried out, and the case was lost.

Your committee would recommend druggists to acquaint themselves with the bearing of the Act on unqualified employees, it being the opinion of eminent legal counsel that only qualified employees can sell poisons in part 1,schedule A,in the absence of the qualified employer. Your committee would also point out to druggists that according to amendments to the Act of 1889 many poisons were transferred from part 2 to part 1, schedule A, notably carbolic acid, and your committee would urge upon all druggists the necessity of registration of such poisons, as there is a widespread notion that it is not important so to do.

Your committee have considered the case of Mr. G. W. Berry, of Lucknow, and beg to report that he is in arrears for one year, and that he must pay the same before entering into business again.

In the matter of D. Campbell & Co., of Dundalk, your committee recommend that the registrar be instructed to notify Mr. Campbell that he is liable for the fee of $4 according to the Act, which amount must be paid.

Re the South Side Pharmacy of Woodstock, your committee recommend that the registrar notify Dr. Melford, the proprietor, that he must register under the Act and pay the fees in arrears for the time he has owned the business, and that the name of the proprietor must appear on the labels used in the business.

Your committee would also suggest that the co-operation of the members of council be given the committee in the matter of infringements of the Act in their districts as far as possible. With the object of prosecuting a vigorous campaign against offenders under the Act, your committee would ask that the sum of $300 be placed at the disposal of the chairman.

Your committee would report that the cost of carrying on its work during the past six months is $360.73, details of which have been embodied in the report of the Executive and Finance Committees, and that the amount received to date from fines amounts to $125.80.

All of which is respectfully submitted.

W. A. KARN.
Chairman.

Mr. Karn moved the reception and adoption of this report, and Mr. Watters seconded the motion in a brief speech. He said that every case reported to the committee had been dealt with, many being settled without going into court. He spoke very highly of the work of the detective, who had been very successful in carrying out the instructions of the committee. The committee had found that druggists did not appear to understand the necessity of registering some poisons, especially carbolic acid,and they hoped the matter would be more carefully attended to in future.

The report carried, and another adjournment was made for the completion of committee work.

At 5.30 o'clock the council again met, and received the following supplementary report from the Committee on Legislation and By-laws:

"In the matter of William Bauer, of Costa Rica, your committee are of opinion that it cannot be dealt with at this meeting, and would recommend that it be disposed of at some future meeting, provided the applicant has complied with the Act."

This report, presented by Mr. Watters, was carried *nem. con.*

Mr. Daniel presented the following report:

"The special committee to which were referred the communications from the secretaries of the American Pharmaceutical Association and the Pharmaceutical Association of the Province of Quebec beg leave to report as follows:

"That the registrar be instructed to write Mr. Hallberg, secretary of the American Pharmaceutical Association, and advise him that his communication reached the committee too late to be acted upon, and explain the fact that our council meetings are held in February and August of each year.

"That while your committee is in sympathy with the objects of the proposed Dominion Pharmaceutical Association, it is of the opinion that, in the face of a failure of the druggists of this province to maintain a Provincial Association on somewhat similar lines, we cannot look for any great measure of success from the attempt to form a Dominion Association, and we cannot, therefore, recommend the co-operation of this council.

"C. D. DANIEL,
"Chairman."

This report was also accepted without discussion, and, there being no further business ready to put before the council, an adjournment was made until Friday morning.

FOURTH DAY.

The final session of the council opened at 11 o'clock Friday morning, with President Mackenzie in the chair, and all the members present except Messrs. Snyder and Turner, who had left for home at the close of the previous day's session.

The Executive and Finance Committee presented report No. 2 as follows:

Your committee recommend the painting and repairing of the front college steps, the price not to exceed that given by the registrar to the council.

In reference to the accounts *re* prosecution *re* Durham Pharmacy, your committee recommend that the matter be left in the hands of the chairman of the Finance Committee to adjust.

All of which is respectfully submitted,
D. H. MACLAREN, Chairman.

The report was adopted without discussion.

The Committee on Education handed down the appended report:

Your committee are very pleased to report the internal working of the college in a condition that is very satisfactory indeed. The session which closed in May last was in many respects far in advance of any previous session. The class was very large, and notwithstanding that fact the very best order prevailed, and it is a fact worthy of note that as a whole the class possessed unusual intelligence and a determination to make themselves thoroughly proficient in the different branches of study, and that fact was brought out in a remarkable degree at the examination, not only in the very high percentage obtained by so many students, but by the unanimous statement of the examiners that the class was the most proficient of any that they had had any experience with.

Too much credit cannot be given to the dean and members of the faculty for their faithfulness in the discharge of duty. The heavy work was performed in a manner that convinced your committee that our college has a staff to be proud of.

Your committee regret that the long talked of two years' course is not an established fact, but it is to be hoped that it may be arranged before long, and that the laboratory accommodation may be increased so as to make it possible.

The college building is remarkably clean and well kept, and reflects great credit upon the janitor, Mr. Young. His untiring energy, politeness, and strict attention to duty is worthy of notice, and deserving of thanks.

The Board of Examiners' report, which is appended, gives evidence of the good work done in the college, containing, as it does, a large number of students who have passed successfully a rigid examination, entitling them to a college diploma, and your committee recommend that these gentlemen be granted the diplomas, and medals to those so entitled.

With reference to the application of F. W. Day, of Ottawa, who was unable to attend the greater part of the senior

course through serious illness, your committee recommend that he be permitted to attend the next senior course without further payment of fees.

Regarding the application of P. J. Nolan, of Ottawa, your committee are of opinion that his educational qualifications are not sufficient to enable him to register as an apprentice, and recommend that his request be not granted.

Mr. T. W. Brown, of Owen Sound, paid his examination fee of $10, but was unable, through illness, to take the examination in May last, and it is recommended that his request be complied with, and that the fee be returned.

Your committee recommend that the following gentlemen be appointed examiners for the ensuing term: Dispensing, Wm. Murchison, Toronto; prescriptions, A. R. Fraser, Toronto; materia medica, J. T. Pepper, Woodstock; botany, D. A. White, Woodstock; pharmacy, F. T. Harrison, London; chemistry, Paul L. Scott, Paris.

Your committee at the last meeting authorized the disposition of the "John Roberts Scholarship" and medal matter, the same to be applied to the examination held last May, but, unfortunately, the recommendation was misunderstood. We, therefore, recommend that the instruction, as given at the last meeting, be carried out, and that the scholarship and medal be awarded to the students entitled to the same at the last May examinations.

The particulars of the bequest are as follows:

RE THE JOHN ROBERTS SCHOLARSHIP.

The late John Roberts, of Ottawa, left by will the sum of $3,000 to the Ontario College of Pharmacy to be applied for such purposes as the executors of his will shall in writing specify, which were as follows:

The formation of a fund to be designated "The John Roberts Scholarship Fund," which fund shall for all time be invested, and all accretions shall be kept invested in such interest-bearing securities as the council of the Ontario College of Pharmacy shall deem proper, and the whole annual rents, issues, and profits of said fund shall be devoted as follows:

(1) The payment of a scholarship of $100 or more, as the interest will furnish, to be designated "The John Roberts Scholarship," offered at the examination in May for highest total number of marks, which must be at least 75 per cent. of total. Should no student attain this then the amount to be added to the corpus.

(2) Gold medal to be designated "The John Roberts Medal," value $20. The conditions to be the highest number of marks in two subjects—chemistry and pharmacy—which must be at least 75 per cent. Should no student be successful in attaining this percentage, then value of medal to be added to the corpus to increase the said scholarship.

Should there be not sufficient money for scholarship and medal, then omit the medal. Conditions: That the apprenticeship of four years must be served in Ontario, and students must attend two terms, junior and senior, at the Ontario College of Pharmacy.

Respectfully submitted,

C. D. DANIEL,
Chairman.

The report was adopted without debate.

Upon resolution, the registrar was authorized to have the minutes of council printed as usual, and copies sent to every member of the college.

Mr. Watters gave notice of a motion to change the regulations governing the award of medals, with a view to restrict them to candidates who have passed an apprenticeship of four years in the Province of Ontario.

On the motion of Messrs. Spackman and Daniel, the dean of the college, Prof. Heebner, was appointed representative of the college on the Senate of the University of Toronto.

On the motion of Messrs. Watters and Karn, the registrar was granted ten days' holiday, commencing August 12th.

In putting through the above resolution, several members spoke very appreciatively of the services Mr. Lewis had rendered to the college.

On motion, Dr. Ellis was appointed examiner in analytical chemistry.

The council adjourned at 11.35 a.m., to meet again on the first Tuesday in February, 1896, or sooner if necessary, at the call of the chair.

A Good Advertisement.

One of the neatest and best forms of advertisements, outside of the regular newspaper ads, which we have seen for some time is that of Walter Pulford, of Winnipeg, Man. It is in the form of a neat little book of twelve pages, with paper cover, and in typography and general appearance is a credit alike to the designer as well as to the printer. The principal subject treated upon is that of prescriptions, and is done in a way that should carry conviction.

Some of the clauses in it we especially commend, viz.:

"*Purity.*—We positively will not use any but pure drugs, so that the physicians and sick one may rely on getting the very best results in the quickest time."

"*Substitution.*—Under no consideration will we allow the substitution of poorer and cheaper medicines than those ordered though they may be similar."

"*Confidence reposed.*—We are very careful that confidence reposed in us, both on the part of the physician, as well as the sick one, shall be sacredly respected. There are many cases in which it would be indelicate as well as improper that any one should know about sick people, their illnesses, or the remedies used, so we make it a rule in all cases to preserve that silence and dignity which should characterize the pharmacist's profession."

The Output of Gum Arabic in the Soudan.

According to a report of the British consul at Suakim, there was a very considerable increase in the output of gum arabic in the Soudan during the past year. This increase, says the report, was more than offset by the decrease in the value of the exportations, which was £56,835 in 1893, to £39,320 in 1894. So close is the understanding between the European houses engaged in the trade, that the profits of the local dealers rarely amount to as much as two per cent. and frequently they are reduced to *nil.*

Le Monde Pharmaceutique, commenting on the report, says: "The most salient point in last year's business is the very considerable advance in prices of the last three months. Ordinarily the season begins in April, when the first lots of gum arrive at the coast, and continues to the end of December, July being the most active month. On account of the drought which prevailed in the gum-producing districts last year, and also on account of the attempt of the Caliph Abdullah to impose a tax on the trees (a tax which affected both producers and merchants), but meagre quantities of the substance were expedited from the interior to the coast, and as a consequence the stock on hand was reduced to low figures, and prices advanced with rapid strides, leaping from $16 the cwt. to $24 an advance of 50 per cent. The latter figure, however, which was quoted in April, was merely nominal, as there was no gum on hand at that time."

Since the native, who gathers the gum, says *le Monde Pharmaceutique*, receives only from $1.50 to $2.50 the cantar (100 lbs.), and the cost of transport to the coast rarely reaches over $4.00 the hundredweight (varying between $2 and $4), it would seem that the prices above quoted leave a very handsome margin of profit—a fact in which we certainly agree with our French contemporary.

The fact is, from all we can learn, that the price of gum arabic has been put up and kept up by a combination formed and maintained by the European houses engaged in the trade, and that this monopoly is too powerful to be broken. No matter what the prospects for good crops and a plentiful supply may be—and all advices agree that the outlook was rarely better—the price will stay at or near the present figures. In pursuing this course the monopoly is working out its own downfall, as the efforts at making artificial succedanea for gum arabic are rapidly reaching a point where it will make but little difference to the world whether any of the genuine gum is produced or not.

The discovery of cheap substitutes for gum acacia in the arts and industries, and the satisfaction given by these substitutes, have lowered the world's demand for the substance from 40,000 cantars in 1881 down to less than 10,000 cantars in 1891, and the falling off still continues.—*National Druggist.*

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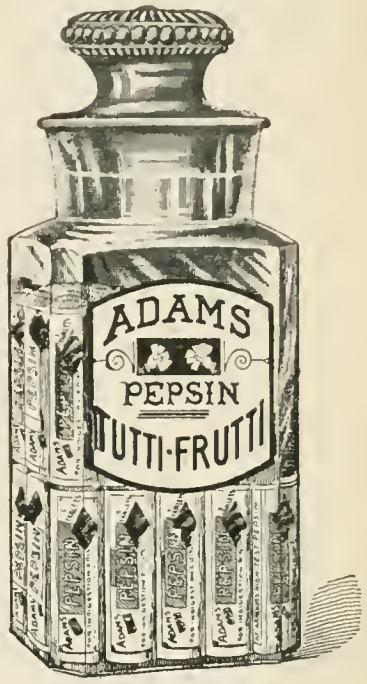

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Ozone Specific is a valuable non-toxic, non-irritating antiseptic for either internal or external use. Our **Ozone,** concentrated form, is the most powerful blood purifier and germicide ever produced, and will be found a specific in all forms of Asthma, Bronchitis, Whooping Cough, Croup, Measles, or Diphtheria. For Catarrhal Troubles it will prove invaluable as a tonic and constitutional remedy, and is especially efficient in preventing or combating fermentation of food in the stomach, breaking up the worst forms of Dyspepsia and Sour Stomach.

For dressing Ulcerations of all kinds, preventing suppuration, and assisting towards rapid granulation and healing, **Ozone** has no equal.

Ozone is also used as a gargle for all manner of Throat Diseases; destroying all fermentation of the tissues brought forth by impregnation of disease germs. No germ life can exist where it is used.

All Druggists should keep this remedy, as it will prove a genuine friend to their customers.

Physicians owe it to themselves to try it.

OZONE SPECIFIC CO.

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RADLAUER'S
ANTISEPTIC PERLES

Of Pleasant Taste and Fragrance.

Non-Poisonous and strongly Antiseptic.

These Perles closely resemble the sublimates and carbolic acid in their antiseptic action. A preventive of diphtheric infection.

For the rational cleansing and disinfection of the mouth, teeth, pharynx, and especially of the tonsils, and for immediately removing disagreeable odors emanating from the mouth and nose.

A perfect substitute for mouth and teeth washes and gargles. Radlauer's Antiseptic Perles take special effect where swallowing is difficult in inflammation of the throat and tonsils, catarrh of the gums, periostitis dentalis, stomatitis mercurialis, salivation, angina, and thrush.

A few of the "Perles" placed in the mouth dissolve into a strongly antiseptic fluid of agreeable taste, cleanse the mouth and mucous membrane of the pharynx, and immediately remove the fungi, germs, and putrid substance accumulating about the tonsils, thereby preventing any further injury to the teeth.

METHOD OF APPLICATION:

Take 2—4 Perles, let them dissolve slowly in the mouth, and then swallow. Being packed in small and handy tins, Radlauer's Antiseptic Perles can always be carried in the pocket.

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CELERY NERVE COMPOUND

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Beef, Iron, and Wine

A scientific Combination of Celery, Beef, Iron, and Wine, Tonics, and Pure Glycerine, instead of alcohol.

UNEQUALLED

AS A HEALTH BUILDER and HEALTH RESTORER

Has given the FULLEST SATISFACTION to persons who have taken it.

It is put up in a 16-oz. bottle, contained in an attractive Blue and White carton.

TERMS.

	$7.20	per doz.
30 days (10% off) or	$6.48	" "
SPOT CASH (on delivery) when shipped direct only	$6.00	"
For orders of 3 to 6 dozen 30 days ($7.20) 10% and 5% off, or Gross lots $63, 5% off 30 days	$6.16	"

SELLS FOR $1 A BOTTLE.

Orders respectfully solicited.

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15 Queen St. East, TORONTO.

A Reduction
In the Price
Of

Gibbons' Toothache Gum

To 65c. per doz.

To be had of all Wholesale Druggists.

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FINEST IN THE WORLD.
From Tea Plant to Tea Cup in its Native Purity.

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And sold in the original packages, ½ lb., 1 lb. and 5 lb. caddies.

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CASTOR-FLUID
For the hair.

DENTAL PEARLINE
An excellent antiseptic tooth wash.

SULPHUR PASTILLES
For burning in diphtheritic cases.

SAPONACEOUS DENTIFRICE
An excellent antiseptic dentifrice.

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All of which have been well advertised, more particularly the "Castor-Fluid," may be obtained at all the wholesale houses at Manufacturer's price.

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22 St. Lawrence Main Street
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A DRUGGIST'S SPECIALTY.

Curtis & Son's Yankee Brand Pure Spruce Gum

Is meeting with the success its high qualities merit.

A TRIAL ORDER SOLICITED.

CURTIS & SON
PORTLAND, ME., U.S.A.

British Columbia Pharmaceutical Association.

The British Columbia Pharmaceutical Association convened in the Manor House, Vancouver, B.C., at 8.25 p.m., June 13th, and was called to order by President McDowell, the following members being present :

President, H. McDowell ; councillors, Messrs. T. Shotbolt, J. Cochrane, T. E. Atkins, T. A. Muir, Registrar C. Nelson, and Messrs. C. Muddell, W. S. Terry, J. K. Sutherland, J. Reed, H. H. Watson, J. R. Seymour, J. F. Jaeck, J. M. Atkins, R. G. McPherson, P. Jones, W. A. Griffiths, D. S. Curtis, and R. Strong.

The minutes of the last annual meeting were read and adopted.

The secretary read the

ANNUAL REPORT OF THE COUNCIL, YEAR 1894-5.

To the Members of the British Columbia Pharmaceutical Association :

GENTLEMEN, — The first meeting of this council was held directly after the annual meeting on June 14th last, when the following officers for the ensuing year were elected :

President, H. McDowell ; vice-president, T. M. Henderson ; secretary-treasurer-registrar, Chas. Nelson.

The Board of Examiners, consisting of Messrs. T. M. Henderson, Victoria ; H. H. Watson, and Chas. Nelson, Victoria, were re-elected.

On September 13th we met in Vancouver. Vice-President T. M. Henderson in the chair. At this meeting the registrar informed the council that the Lieutenant-Governor in Council had sanctioned the additions to the poison clauses. It was decided to obtain amendments to the Pharmacy Act, 1891, and Messrs. Shotbolt, Cochrane, and Henderson were appointed a committee to look to the framing and passing of the same through the House.

A special council meeting was called by the president, on request, and met in the registrar's office, Vancouver, November 7th, all the members being present. The amendments to the Pharmacy Act were gone into fully, and discussed at length. It was carried unanimously that the secretary reply to the Deputy Attorney-General, and state that they fully endorsed the action of the Board of Examiners in declining to register Mr. Carmichael. It was also decided, on motion, that this special meeting take the place of the next regular in December.

On March 14th your council met in New Westminster, but, not getting a quorum, returned *via* train to Vancouver, where a quorum was obtained. The president in the chair. At this meeting some fifty letters received and answered by the registrar were read, and his replies endorsed.

At this meeting several applications were received from parties desiring to be registered without the qualifications called for in the Act, but your council decided, after due consideration, that all must be treated alike and conform fully with the Act and by-laws before they could be registered.

Committee on Amendments reported that the amendments to the Pharmacy Act, 1891, about which there had been so much strife and discussion, had passed the House and were law. We think that the association may congratulate themselves that, with these amendments, we now have a pharmacy law to be proud of, and that, although it has not been gained without many difficulties and much diligent work on the part of the special committee and the council, it is, on the whole, very satisfactory, and will aid much in building up the standing of the pharmaceutical profession.

The Lieutenant-Governor in Council was asked to appoint the new Board of Examiners, in conformity with the amended Act.

The question of the reduction of fees was fully gone into, the resources and probable expenditure of the association receiving due consideration, and, in view of the fact that in future your association will be called upon to pay all expenses for any amendments or additions, or notices in the *Gazette*, which will mean an outlay of from $300 to $400, it would be necessary to still keep the fees higher than what the last annual meeting had recommended, and it resolved to reduce the licentiate and clerks' fees to $8 and $4 respectively.

A hearty vote of thanks was passed H. D. Helmcken, Esq., on behalf of the association, for the able manner in which he had championed our cause in the House.

We again met in Vancouver this a.m., June 13th. The tenders for printing new by-laws and Act were examined, Messrs. Trythall & Son's, Vancouver, being accepted.

An application from Mr. Hunnex to modify by-laws and rules on his behalf was declined.

Long correspondence from the Pharmaceutical Association of Quebec, asking this council to assist in forming a Canadian Pharmaceutical Association, and the proposed by-laws and constitution, were discussed. This will be laid before you later.

For the information of those interested, we may mention that examinations, whether preliminary, minor, or major, are only held twice a year—in April and October.

Several applications on eastern diplomas were received and referred to Board of Examiners.

We would recommend to this association that an annual grant be made for the expenses of entertaining the annual convocation, not to exceed fifty dollars.

Yours truly,

CHAS. NELSON, Secretary.

This report was, on motion of Mr. J. L. Jaeck, and seconded by Mr. J. M. Atkins, adopted as read.

REGISTRAR'S ANNUAL REPORT.—JUNE 13TH, 1895.

To the Officers and Members of the B.C. Pharmaceutical Association :

GENTLEMEN,—In again presenting my report of the business transacted and work done, I think it will be plain to all that our association is progressing favorably and each year finds it of more importance. The continual influx of correspondence and enquiries from all parts of the world shows that we are known to be a live association. It is pleasing to notice that on May 31st not a single member, in business, was behind with his dues, and only one apprentice, so that we may say that our membership is perfect from a financial standpoint. The growing interest taken by the members in the nominations and election shows a marked improvement. Something like 25 members were nominated, but all but 12 of these declined ; some for good reasons. I should judge that between 50 and 60 of the 65 members have used their ballot, and trust the result will give us as good a council for the incoming year as we have had in the past.

I have endeavored to do my work (which is no light affair) fairly and squarely, keeping in fair bounds, and, if I have not pleased every one, the intention has been for the best.

The total number of licentiates at present on the register is 65 ; of these 48 are in business on their own account, and 17 as clerks as follows :

	In business.	Clerks.
Victoria	17	10
Vancouver	14	4
New Westminster	5	1
Nanaimo	5	1
Kamloops	2	0
Nelson	2	0
Kaslo	1	0
Vernon	2	0
Esquimalt	0	1

There are 19 apprentices : Victoria, 4 ; Vancouver, 6 ; Nanaimo, 4 ; New Westminster, 2 ; Vernon, 1 ; Kamloops, 1 ; Kaslo, 1 = 19.

Thirty nomination papers were received by the registrar, and, as stated before, over 50 voting papers. One or two points, which may not be out of place here. Firstly, the by-laws of the association call for a specific fee ; that unless that fee at par is received by registrar, he cannot accept it, except less the exchange. This is only fair to all, as most of the members sending cheques add the exchange, and a minority, and a very small one at that, should not persist every year in being the exception. The other point I would like to emphasize is, that the vote is supposed to be by ballot, and a special stamped envelope has been provided for two years for the voting paper only, and this specially noted in the circular, but quite a number of the members have used the envelope for fees and other matters, which the registrar has to open, which, to a certain extent, spoils the true and total secrecy of the ballot.

In conclusion, I think that every member should look upon the association and its council as his best friend, and do all that can be done to make the affairs run smoothly.

Trusting we shall have continued success and progress, I have the honor to be, Gentlemen,

Yours respectfully,
CHARLES NELSON,
Registrar.

TREASURER'S ANNUAL STATEMENT FOR CUPRENT YEAR, ENDING MAY 31ST, 1895.

Cash Received—1894-5.

June 1st, 1894.

Ba ance in hand, Bank of B.C.....		$ 734 13
To cash fees, June 14th to July 9th.....	$ 51 50	
To cash fees, July 9th to Nov. 5th.....	11 00	
To cash poison books.....	3 00	
" " fees to March 11th.	40 00	
" " " 31st.	12 00	
" " fine P. Court Victoria.....	10 00	
To cash fees, 1894-5.....	512 00	639 50
		$1,373 63

Cash Disbursed.

June 1st, 1894.

By cash, expenses council meetings	$105 25	
By cash, examinations.....	17 50	
" " " advertising	35 00	
" " law.....	59 00	
" " printing.....	47 50	
" " postages.....	18 50	
" " sundries..	3 00	
" " stationery.....	6 00	
" " P.O. box.....	5 00	
" " registrar.....	150 00	
" " secretary's desk.....	50 00	
" " amendment ex's.....	12 25	
" " fee returned.....	5 00	514 00
Balance in Bank B.C.....		$859 63

CHARLES NELSON,
Sec.-Treasurer.

Audited, and found correct.
J. L. JAECK.
J. R. SEYMOUR. } Auditors.
June 12th, 1895.

AUDITORS' REPORT.

To the B.C. Pharmaceutical Association, Vancouver:

GENTLEMEN,—We have this day carefully gone over the books of your association, and are pleased to report that everything was found correct.

J. R. SEYMOUR,
J. L. JAECK, } Auditors.

These reports were adopted as read, on the motion of Mr. R. G. McPherson, seconded by Mr. H. H. Watson, after which the president read his annual address, as follows:

PRESIDENT'S ADDRESS.

GENTLEMEN,—It is again my pleasure and pride to have the honor of addressing you, as president of the B.C. Pharmaceutical Association, at this our fifth annual meeting.

I am pleased to know that, as our years increase, we continue to increase in numerical strength and I hope also in other directions.

Since our last annual meeting, as you are all aware, there has been a general provincial election, and, whether the new legislature is a more intelligent and progressive one than its predecessor, or whether our association put forth stronger efforts, certain it is that we have been successful in securing the amendments to our Pharmacy Act that were denied us by the previous House.

We now have, I think, a Pharmacy Act which will be found much more effective and workable than our previous one. About the only particularly weak part about it is that it applies only to incorporated cities and towns, but your council did not feel justified in jeopardizing the whole Act by trying to have this amended.

The thanks of this association are due to Mr. Helmcken, who so ably championed our cause before the House, and, despite the most bitter opposition which threatened at one time to kill the whole Pharmacy Act, he nobly led us on to victory.

As you are doubtless ere this aware, your council, in revising the by-laws of the association, did not overlook the recommendation given at the last annual meeting, regarding reducing the annual fees. They could not, when they carefully considered the annual charges of the association, go quite so far as recommended at that meeting, but they have made a very material, and I think fair, reduction of the fees; and, as our numbers increase, the probabilities are that they may be able in the future to make some further reductions.

Another important amendment to the by-laws, and one which I think you will all look upon only as fair and reasonable, is, that the members of the council should receive some remuneration for the time given to the work of the association.

As I am not seeking re-election to the council, I can speak more freely on this subject than perhaps I otherwise would. I know now, after about five years' experience, something of what the council has to do, and I for one certainly think they are entitled to considerably more than the remuneration fixed in the by-laws as amended.

The other work of the council during the past year has been clearly laid before you by the secretary, so I will not weary you with anything more, especially as I believe there is waiting for us in the not distant future something much more appetizing and entertaining than anything I could say to you. I will now bring these few remarks to a close.

But, as I am retiring to private life, so far as the council of this association is concerned, I cannot take leave of my old confrères without thanking them one and all for their many kindnesses to me while associated with them, in the council and out of it, and I only hope that future councils will work along as harmoniously and friendly as those of the past.

Thanking you, gentlemen, for your kind attention, and trusting we may be all spared to attend many more such gatherings, I will close.

The address was received with applause, and Mr. H. H. Watson moved, and Mr. J. R. Seymour seconded, that it be printed in annual report; also that a hearty vote of thanks be given the retiring council and registrar for their past services, which motion was carried unanimously amidst applause.

The election came next in order, and the president appointed Messrs. R. G. McPherson and W. A. Griffiths scrutineers, who, on examination and count of ballots, proved an election, and that Messrs. Thos. Slotbolt, E. McG. Van Houten and J. R. Seymour were the choice of the association for the term of two years. The president declared them elected. Applause.

Mr. Shotbolt and Mr. Seymour both thanked the members for the trust implied. Mr. Cochrane also spoke, thanking the members for their past confidence, and promised his full support to the council. Applause.

Mr. D. S. Curtis moved and Mr. J. Cochrane seconded, that Messrs. H. H. Watson and J. F. Jaeck be appointed auditors for the ensuing year. Carried.

Mr. D. S. Curtis moved, and Mr. J. K. Sutherland seconded, that the report of the annual meeting be printed and distributed among the members. Carried.

The by-laws and constitution of the proposed Canadian Pharmaceutical Association were read by the registrar, assisted by Mr. J. Cochrane, and, on motion of Mr. R. G. McPherson and Mr. J. Cochrane, the matter was left in the hands of the new council, with power to act.

Mr. Curtis moved, and Mr. McPherson seconded, that the surplus funds of the association be invested by the council. Carried.

In the matter of entertainment of members attending the annual meeting, after a pleasing discussion, Mr. D. S. Curtis moved, and Mr. McPherson seconded, that the suggestion of the council be carried out, and that a sum not exceeding fifty dollars be appropriated annually for that purpose. Carried.

No further business coming up, it was moved, seconded, and carried to adjourn to meet in New Westminster in June, 1886.

CHARLES NELSON.
June 13, 1895. Sec.-Registrar.

WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc., will be inserted once free of charge. *Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.*

WANTED.

DRUG STORE FIXTURES WANTED.—WANTed a second-hand set of modern Drug Fixtures in natural wood. Send full description with price to Box G, CANADIAN DRUGGIST.

SITUATIONS WANTED.

WANTED SITUATION AS DRUG APPRENtice; in second year; good dispenser and stock keeper; best of references; country preferred. "Drug Clerk," 96 McGill Street.

FOR SALE.

DRUG BUSINESS FOR SALE IN A GOOD TOWN will stand inspection. Address, CANADIAN DRUGGIST

SOUND DRUG BUSINESS IN CITY FOR SALE. An exceptional opportunity. Good location. Branch Post Office more than pays rent. Good reasons for selling. Address, P.M., CANADIAN DRUGGIST.

KODAK, EASTMAN NO 3, VALUE $50.00, WILL be sold cheap; perfectly new. Box. W, CANADIAN DRUGGIST.

LePAGE'S
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IMPROVED

TRADE PRICE { Per Winchester - $2.25 / Per Dozen—Small - 3.50 / Per Dozen—Large - 7.00

Also LePAGE'S "BEEF, IRON AND WINE."

Quality Guaranteed Price Reasonable Trade Solicited

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59 BAY STREET, TORONTO.

Free Course on **Optics**

GIVEN WITH

Standard Canadian Test Case

For particulars apply to

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Mr. H. G. Levetus
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Lime Fruit Juice

Is the Strongest, Purest, and of Finest Flavor

We are the largest refiners of LIME JUICE *in America, and solicit enquiries.*

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HALIFAX, N.S.

THE EXCELSIOR
Drug Mixer and Sifter

A necessary article in every DRUG STORE.

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and everything where perfect blending and uniformity is desired.

A Druggist

taking proper interest in his establishment will provide his customers with first-class goods only.

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Toilet Papers and Fixtures form part of the Stock of a well-equipped drug store.

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The original French Coca Wine; most popularly used tonic-stimulant in *Hospitals, Public and Religious Institutions* everywhere.

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Strengthens the entire system; most Agreeable, Effective and Lasting Renovator of the Vital Forces.

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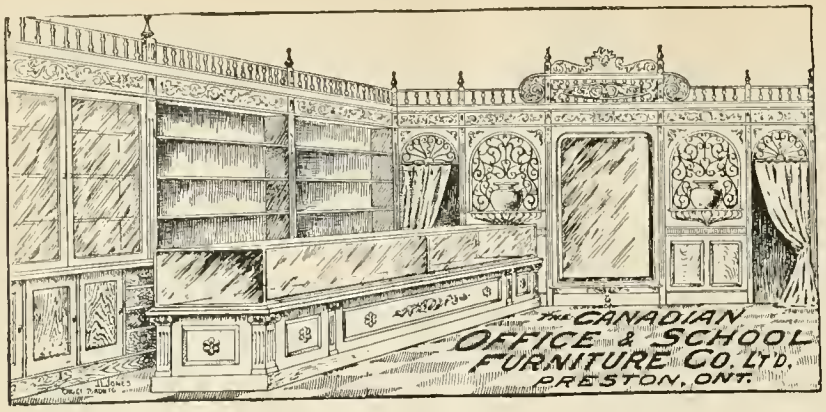
The Bordeaux Claret Company, established at Montreal in view of the French treaty, are now offering the Canadian connoisseur beautiful wines at $3.00 and $4.00 per case of 12 large quart bottles. These are equal to any $6.00 and $8.00 wines sold on their label. Every swell hotel and club are now handling them, and they are recommended by the best physicians as being perfectly pure and highly adapted for invalids' use. Address: BORDEAUX CLARET COMPANY, 30 Hospital Street, Montreal.



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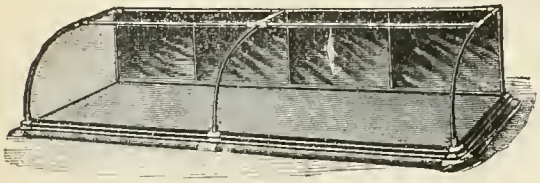

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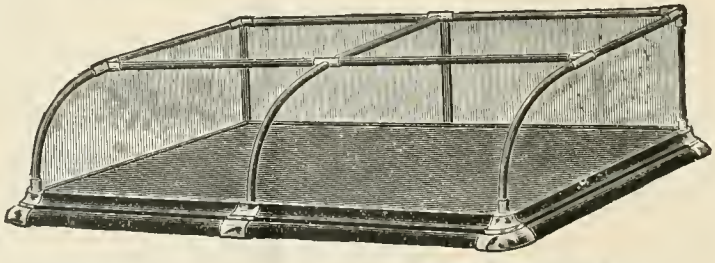

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COUNTERS, WALLS, OR DISPENSARIES.

SHOP FIXTURES ◆ COUNTERS ◆ TABLES ◆ SHELVING ◆ MIRRORS, Etc.

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94 Carling Street,
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DRUGGIST FAVORITE, 5c.
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Send for Sample Order.

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ENEMAS, TUBING, FOUNTAINS, ATOMIZERS, is very complete and prices right. Buyers can effect great saving by placing orders with us.

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SILVER CREAM
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½ gross Box at $1 per Box.
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In 5c. Packages, ½ gross Box, $1 per Box.

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25 CTS. PISO'S CURE FOR CURES WHERE ALL ELSE FAILS. Best Cough Syrup. Tastes Good. Use in time. Sold by druggists. CONSUMPTION 25 CTS.

I use Piso's Cure for Consumption both in my family and practice.—Dr. G. W. Patterson, Inkster, Mich., Nov. 5, 1894.

PISO

The best Cough Medicine is Piso's Cure for Consumption. Children take it without objection. By all druggists. 25c.

25 CTS. PISO'S CURE FOR CURES WHERE ALL ELSE FAILS. Best Cough Syrup. Tastes Good. Use in time. Sold by druggists. CONSUMPTION 25 CTS.

Pharmaceutical Notes.

Pixol.—This is pine wood tar treated with soft soap and caustic potash. Dounalsky finds an aqueous solution containing 10 to 13 per cent., applied three or four times daily, excellent in dermatitis from various causes, in psoriasis, soft chancres, and other venereal sores.—*Annal. Dermat.*

Crystallized cinchonicine is obtained by a French chemist by melting the neutral sulphate of cinchonine at 130 degrees C., and purifying the cinchonicine by repeated crystallization from water in the form of oxalate. The solution of oxalate was treated with potash and the free base extracted by means of ether. Though soluble in benzine, toluene, acetone, chloroform, and alcohol, cinchonicine has not so far been crystallized from its solutions in those liquids.

Aqua Chloroformi Extemporaneously.—A correspondent of *l'Union Pharmaceutique* says that aqua chloroformi of sufficient saturation for all general purposes may be made by shaking together 100 grains of distilled water and 10 drops of chloroform for several minutes, letting stand for fifteen minutes and filtering.

Color Reaction for Cod-Liver Oil.—According to Rossler, when 5 parts of genuine cod-liver oil are shaken in a test tube with 3 parts of freshly prepared aqua regia, at the end of eight minutes there is formed at the juncture of the liquids a series of greenish rings passing to brownish violet. Inferior oils give either a very slight reaction or none at all.—*Prager Rundschau.*

Concentrated Solution of Boric Acid.—When boric acid is warmed with concentrated glycerin to 48° C. (about 118½° F.), a gelatinous mass containing 68 per cent. of the acid is obtained. This jelly dissolves in water with great ease, thus giving a highly concentrated solution if desired.—*National Druggist.*

Calcium Borate.—This salt, which exists as a white powder, soluble in solutions of calcium chloride or of borax, may be used, according to Dr. Alberto, with advantage in the form of ointment in the treatment of burns, moist eczema, and fetid perspiration. Internally it is said to be an excellent anti-diarrhœic for children. It may be exhibited as follows: For external use, borate of calcium, 5 parts; glycerin, 5 parts; lanoline, 20 parts; balsam of Peru, 1 part. Mix. Internally, borate of calcium, 50 centigrammes; powdered salep, 20 centigrammes; sugar, 30 centigrammes. A child of five years of age may take three such powders daily. Speaking generally, the dose of borate of calcium in such powder should be as many decigrammes as the child is years old.

Belgian Method of Making Cerates.—Giot and several other pharmacists advocate the following manipulation in preparing cerates and cold cream. The oil and wax are melted with a gentle heat and strained into a cold mortar, where they are allowed to remain undisturbed until thoroughly set. The hardened mass is then thoroughly rubbed up with the pestle until softened and perfectly homogeneous; then are added gradually with thorough trituration the customary ingredients, such as aromatic waters, benzoin essences, etc. Further trituration is continued until the cerate becomes white. Operating in this manner a perfectly homogeneous cerate is obtained free from clots, and from which the added water does not separate.—*Journ. de Pharm. d'Anvers.*

Tests for Margarine.—An easy test for detecting margarine is to burn a small portion of the suspected substance on the end of a spatula; the peculiar odor of burning tallow will be distinguished in the case of margarine. One of the best tests, however, and also an easy one, is to take 3 c.cm. of melted fat (the substance under consideration) with 3 c.cm. of the strongest acetic acid, and place in a test tube; a thermometer should be inserted, and it will be found that whereas margarine, with the acid, does not form a clear solution until 95° C. is reached, the mixture of butter and acid will clear at about 93° C. A lump of margarine, left by accident in a ward full of sulphur fumes, assumed a pink color. Specimens were exposed under a bell glass containing burning sulphur, and it was found that all the margarine became pink, while butter, exposed under the same glass, remained unaltered. It would be interesting to know whether all margarines are thus changed in color, and what the explanation may be.—*British Medical Journal.*

Ready Tests for Albumin in Urine.—Fouchlos claims (*Progrès Médical*) that the following two simple tests for albumin in urine are most delicate and infallible: (*a*) Add to the suspected urine a few drops of a 1 per cent. solution of mercuric chloride; in case of turbidity, add some drops of acetic acid. If the turbidity persists it is due to the presence of albumin. (*b*) Take 100 c.c. of a 10 per cent. solution of potassium sulphocyanide and mix with it 20 c c. of acetic acid. Add a few drops of this mixture to the urine. If albumin is present in small quantities an immediate turbidity will ensue; if in larger quantities, a heavy white precipitate will appear.

Curious Motions in Fluids.—The wonderful contractile and stream-motions of living protoplasm, whether in plants or in animals, have always been of the highest interest to scientists. Those who believe that such movement is a characteristic phenomenon of life do not, of course, strive to explain it on mechanical principles, but such attempts have been made from time to time by others. Now Prof. Quincke, of Heidelberg, thinks he can deduce it from the phenomena of surface tension. His researches, of which he gave an abstract at the recent British Association meeting, have, he says, occupied more than forty years. He finds that drops of oil floating on slightly alkaline water are attracted towards the walls of the vessel and then repelled, the spreading of the soap-film that results from the action of the alkali on the oil giving rise to periodic vortex motion. Viewed with the microscope the film shows the same minute strings of pearly bead-like bubbles that are observed in protoplasm. Virchow has observed the same phenomenon in putrefying brain.—*Literary Digest.*

Vegetations in Old Distilled Waters (Alcoholic)—This is the title of a paper by Barnouvin (in the *Repertoire de Pharmacie*), in which he says that the labors of Pasteur have shown that vegetable moulds take on the character of ferments only when they are deprived of air, or have an insufficient supply thereof, a fact which also accounts for the presence of such moulds in alcoholic distilled waters. The author found in peppermint water a mould which secreted a yellow coloring matter that was not altered either by sulphuric or hydrochloric acid, or by alkalies, and therefore answered to the *Micrococcus luteus* of Cohn. In another he found the *Micrococcus aurantius*, Cohn, the coloring matter of which is soluble. Linden water sometimes takes on a rosy red color, due to the presence of *Micrococcus prodigiosus*. The author observed colonies of algæ (*Microhaloa firma*, *Palmella firma*) in linden-flower water, and in matico water colonies of *Protococcus chlamidomonas*.—*National Druggist.*

Ferripyrin is a new drug recently prepared and introduced by Witkowsky, being a combination of iron perchloride and antipyrin. It is an orange-colored, readily soluble powder, recommended both as an hæmostatic and a local astringent. Hedderich has already made investigations as to its practical usefulness, obtaining very good results, and finding it different from the more generally used perchloride of iron in being absolutely non-irritating and non-destructive to tissues. When applied to the nasal mucous membrane it also proved to be a mild anæsthetic. A solution, 18 to 20 per cent. in strength, was usually employed, but the powder itself could also be applied. Its use in gonorrhœa and internally in cases of hæmatemesis is also suggested. —*Therap. Monatsh.*

Palatable Medicine.

One of the main arguments advanced by the manufacturers of special preparations to help sales is palatability. Some of the claims made on this score are absurd, but it is undoubtedly true that the present tendency in medicine is away from the old nauseating and disgusting mixtures of the past and toward palatability and elegance of combination. So far as such palatability and elegance can be brought about without sacrifice of the

medicinal activity of the combination, the desirability of it cannot be questioned. When, however, the medicinal virtues of the drug are sacrificed to bring about this result, the proceeding is worse than farcical and becomes serious.

Many remedies that are in themselves disagreeable and nauseating can be made comparatively pleasant by proper manipulation, and without in any way interfering with their medicinal qualities. This being so, it would seem the duty of pharmacists to put forth special efforts in the direction of dispensing elegant and palatable preparations. The field for this is a large one, and belongs exclusively to the pharmacist, and its development lies with him. So many pharmacists lament the tendency among their members to neglect laboratory work, and take the statements of manufacturers unattested. The professional standing of pharmacists is lowered by this, and the individual is, at the same time, deprived of profits that legitimately belong to him.

THE PALATABILITY OF MEDICINES

is a question that intimately concerns the pharmacist and demands his attention, not alone because of the power it gives him to fight the special remedy nuisance, but viewed as a duty owed to the public. It is possible by the use of aromatic drugs and oils to flavor some preparations so as to mask their disagreeable characteristics, and much has been accomplished in this direction. Liquorice has played an important part as a flavoring agent, and will doubtless continue to be used with good effect. Chocolate will bear further investigation, and perhaps come into more general use in the preparation of certain elixirs. Of the numerous agents in ordinary use, however, none has the wide range of usefulness possessed by saccharin. It is the most important of all, and in elixir work is simply invaluable—not that it alone can do so much, but because of its excellence in combination with other sweeteners and flavoring agents. Saccharin does not do away with the use of aromatics, nor does it remove the necessity of using other adjuvants, but we can bring about certain results with its use in combination with other ingredients which are impossible without it. Some months ago the writer made some experiments in order to perfect a formula for the preparation of an aromatic extract of cascara sagrada, and the results were communicated to the *American Druggist and Pharmaceutical Record* (see vol. xxv., p. 259). It was shown that a palatable aromatic extract could be prepared by a proper combination of liquorice and saccharin with a bitterless extract of the drug. Experiments made along these lines, both then and since, have shown the worth of these two agents in many preparations.

ONE OF THE POPULAR NEW REMEDIES

is kola, and we have aromatic elixirs and cordials of the drug. In fact, to-day this remedy seems to be the fad. The value of saccharin and liquorice in the preparation of elegant kola compounds is great. A formula based on the following proportions yields a very satisfactory

AROMATIC ELIXIR OF KOLA.

Fld. extract kola	2 oz.
Ammoniated glycyrrhizin	1 dr.
Saccharin	1 "
Water	7 oz.
Alcohol	3½ "
Simple syrup	3½ "

Dissolve the ammoniated glycyrrhizin in the water, and in this dissolve the saccharin ; now add the syrup and alcohol, followed by the fluid extract of kola, to which has been added a few drops of oil of orange. Set aside with occasional shaking during five or six hours ; then filter and bring its bulk up to one pint with simple elixir.

A VERY PALATABLE FLUID EXTRACT OF BUCKTHORN

may be made after the following formula :

Fld. extract of buckthorn	oj.
Ammoniated glycyrrhizin	2 dr.
Saccharin	1 "
Solution of potash	2 "
Water	2 oz.

Dissolve the saccharin and glycyrrhizin in the water, to which has been added the solution of potash, the fluid extract of buckthorn, and mix thoroughly. The result is an elegant fluid extract, free from nauseating or disagreeable taste.

Thus combinations might be multiplied. Experiments along this line cannot but bring the physician and pharmacist closer together and heighten mutual esteem. Work along this line and its results would rob the special remedy people of one of their strongest arguments, and the pharmacists would be correspondingly benefited.—*Frank Edel, in American Druggist.*

Losses and Leaks in the Drug Business, and How They may be Prevented.*

This is a part of the drug business that some of our fellow-pharmacists very much overlook. The art and ability of buying stock and taking care of the same is very important. To overcome these difficulties is the object of this paper.

Drugs are often purchased and exposed to light or air, which deteriorates their value greatly. Powders, herbs, and roots are frequently infected with worms and insects. I have found in my experience that frequently an extra demand is made on some article, and the supply may be continued for a time, when all at once the rush will stop, and the balance of the goods remain on hand to be disposed of for almost nothing.

Goods are often stored away, and, if not frequently examined, they may become soiled or otherwise damaged. Many other little points that are neglected cause some of the indirect losses in business. I may state that stocks in general are not examined and cleaned up often enough. Specialties, sundries, and new things should be brought out and rearranged. People are always looking for something new.

Petty little sales of from one to five cents, that are not paid for at the time, are often forgotten, and only increase the losses and leaks in the business.

Dusty, dirty show-cases, and a dusty store, have their influence as to leaks and losses. There are many other sources of destruction too numerous to mention. A few suggestions regarding the latter part of this subject may be of some value. Clean and dust your show windows often ; rearrange the display to make it attractive; have your shelf bottles clean and bright ; such drugs as form a sediment or that precipitate can be filtered, and will add greatly to the looks of your stock ; have your show-cases bright and well arranged ; have your goods all marked with cost and retail to facilitate the sale and dispensing of same.

The use of proper containers is very essential, and making a neat package adds to the satisfaction of your customers. Keep your patent medicines, proprietary articles, and sundries, clean and well arranged and convenient. Be pleasant and sociable. Nothing is more disastrous to trade than a cool, sober, independent appearance and action. Be prompt and attentive to your customers and your business. Let the public know where you are, what your business is, and that you thoroughly understand your profession.—*Omaha Druggist.*

* Read before the annual meeting of the South Dakota Pharmaceutical Association, July 17th, 18th, and 19th, by J. A. Bower.

Effervescent Powders.

The following will be found seasonable, and, if properly put up, would be a source of revenue during the warm weather at least.

FRUIT SALINE.

Take of

Mpexsicluhsg	2 ozs.
" cit. eff	2 "
Potass. bitart	2 "
Soda bicarb	2 "
Acid tartaric	2 "
Pulv. sacch. alb	4 "

The addition is sometimes preferred of

Potass chlorate	5 per cent.

It may be flavored with

Ess. grape, orange, or other fruit essence q. s.

Thoroughly dry, mix, and preserve in stoppered bottles.

LEMONADE POWDER.

Take of

P. soda bicarb	1 part
P. acid tart	1¼ parts
P. sugar	2 parts
Ess. lemon	q. s.

Mix, sift.

GINGER BEER POWDER.

Take of

Bruised Jamaica ginger	10 ozs.
Powd. " "	2 "
Cream tartar	6 "
Powdered alum	1 oz.
Ess. lemon	½ fl. oz.

Mix. Put up in 2 oz. boxes with the following directions : Pour one gallon of boiling water over the contents of the packet, let it stand for one hour, then add 1 lb. of sugar, one gallon of cold water, and half a cupful of yeast. Allow it to "work" for three or four hours, then strain through flannel and bottle off.

Allen B. Wrisley's

CUCUMBER COMPLEXION TOILET SOAP

IS "PURE GOLD"

The virtues of Cucumber Juice for the Skin and Complexion have become *famous*. We challenge comparison with any fine milled, delicately perfumed, high grade soap in the market. It's **The Complexion Toilet Soap** of the world. Made on honor, full value, par excellence. Matchless for a clear, soft, skin beautifier. It is well worth 50 cents a cake, but can be sold at Retail for (¼) one-quarter of that price. Try it, try it, and be convinced.

Sold by the Wholesale Druggists in Canada.

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(REGISTERED)

A POSITIVE CURE FOR

CATARRH
COLD IN THE HEAD
CATARRHAL DEAFNESS
HEADACHE, Etc.

It is reliable, safe, and sure, giving instant relief in the most distressing cases.

PRICE, 25 CENTS.

Wholesale of Kerry, Watson & Co., Montreal. Lyman, Knox & Co., Montreal and Toronto.

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CLEAN TO USE.

MARSHALL'S FLY CATCHER. PATENTED. WHEN COVERED PULL STRING BACK TO REMOVE FLIES, AND USE AGAIN. The Fly Paste for own use supplied in Tins at 2d. Manufactory, Henfield, Sussex.

Can be carried in the Pocket.

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MARSHALL'S Fly & Mosquito Catcher

IS NOT OFFENSIVE TO THE SIGHT.

Catches more Insects than Sticky Papers.

DOES NOT SPOIL BY KEEPING.

GOOD IN ANY CLIMATE,

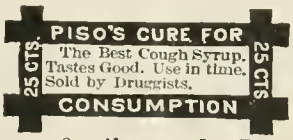
Therefore specially suitable for Export.

Promptly fixes the pests, and rapidly clears a room of these carriers of disease and contagion.

Catches successive crops by drawing the String to and fro, and at the same time Killing the Insects, thus there is no lingering torture.

CANADIAN WHOLESALE DEPOT:

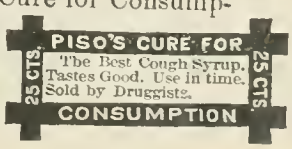
The LYMAN BROS. & CO., Limited,
TORONTO.



I presume we have used over one hundred bottles of Piso's Cure for Consumption in my family, and I am continually advising others to get it. Undoubtedly it is the

Best Cough Medicine

I ever used.—W. C. MILTENBERGER, Clarion, Pa., Dec. 29, 1894.———I sell Piso's Cure for Consumption, and never have any complaints.—E. SHOREY, Postmaster, Shorey, Kansas, Dec. 21st, 1894.



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Distilled under Excise supervision.

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COGNAC

In Quarter-Casks, Octanes, Half-Octanes, and Casks.

J. S. HAMILTON & CO.

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JOHN LABATT'S

LONDON

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GOLD MEDAL

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Besides 9 other GOLD, SILVER, and BRONZE **MEDALS**

At great exhibitions.

"La Fayette" Cigarettes, 5c.

Made of pure Virginia and Turkish (Egyptian) Tobaccos.

"Creme de la Creme" Cigarettes, 10c.

Made of specially selected Virginia and Turkish (Egyptian) Tobaccos. Cured and blended by the most experienced hands.

Royal Turkish / Egyptian Cigarettes, 15c.

Blended from the finest Turkish (Egyptian) Tobaccos grown.

"Sonadora" Cigarettes, 15c.

Made of the choicest Havana Tobacco, personally selected for this brand, and carefully and skilfully blended to produce the finest effects of Flavor and Aroma.

IF YOU USE THE

Red Star Toothwash Bottle

You will beat your neighbor, as no other approaches it for beauty.

Scant 2 oz. (looks like a 3 oz.) complete open crown sprinkler at $7.83 net per gross. Sample sent on receipt of 5 cents to pay postage.

T. C. Wheaton & Co., Millville, N.J., manufacturers of Flint, Green and Amber ware, and the largest factors of Homeo. Vials in the world.

RIPANS

One Gives Relief.

NO MORE BALD HEADS, NO MORE GREY HAIR
CAPILINE
CLEANLINESS, BEAUTY & EFFICACY ARE THE PROPERTIES OF THIS RESTORER
ASK YOUR DRUGGIST FOR IT.
50¢

THE OLDEST - THE BEST

This Ink has been known to the trade since 1835 as
PAYSON'S
INDELIBLE INK
for Marking Linen, Silk & Cotton
WITH A COMMON PEN
Without a Preparation.

Trade supplied by all leading Drug Houses in the Dominion.

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JOHN A. SAUL,

Atlantic Building, - - Washington, D.C.

Piso's Remedy for Catarrh is the Best, Easiest to Use, and Cheapest.

CATARRH

Sold by druggists or sent by mail. 50c. E. T. Hazeltine, Warren, Pa.

Formulary.

DANDRUFF POMADE.

Pilocarpine	½ dr.
Quinine hydrochlorate	1 "
Precipitated sulphur	2½ "
Peruvian balsam	5 "
Ox-bone marrow	3 oz.

Make a pomade.—*Pharm. Zeitung.*

CREOSOTE PILL.

The following is the latest attempt to solve the old question of making a creosote pill-mass which shall be soluble in the stomach and preserve its qualities for an indefinite, or at least a reasonable, length of time. It is offered by A. Schreiber, in the *Apotheker Zeitung :*

Creosote	6 gm.
Dry egg albumin	3 gm.
Distilled water	10 drops.

Mix and agitate together, and add

Licorice root, powdered ; licorice juice, āā q.s.

to make 100 pills. The creosote is so firmly bound in this manner, says the author, that not a trace exudes. The pills are not soluble in water, but are so in the gastric juice.—*National Druggist.*

SYR. FERRO-MANGANI SACCHARATI.

Syr. ferri ox. sacch.	8 oz.
Syr. mangani ox. sacch.	2 "
Spt. vini gallici	10 dr.
S.V.R.	10 "
Tr. aurantii	1 "
Tr. aromat.	*m*xx.
Tr. cinnamon	*m*xv.
Essent. vanilæ	*m*xv.
Æther. acetici	*m*v.
Aq. ad	36 oz.

—*After Gerhard (Apoth. Zeit.) ; Chemist and Druggist.*

POMMADE HONGROISE.—FIXATEUR HONGROISE.

This preparation for the beard and moustache, as imported, costs considerably, and anybody, with the following before them, can prepare it at a mere fraction of the price now paid for it. It is taken from the columns of *Der Seifenfabrikant :*

Light dextrin	50 parts.
Soap powder	20 parts.
Water	80 parts.
Japanese wax	50 parts.
Glycerin	2 parts.

Warm the dextrin, soap powder, and water together to a homogeneous paste, and add the wax and glycerin, continuing the heat and stirring until they are fully incorporated. Add any desired perfume. If you desire to color it, use umber for brown and lampblack for black, and rub up with the glycerin before adding to the mass.—*National Druggist.*

GLYCERINE OF CUCUMBER.

℞ White Castile soap	½ oz.
Glycerine of borax	1 "
Cucumber pomade	3 "
Rose water	2 parts.

Dissolve the soap in half a pint of the water, melt the pomade, pour into a warm mortar, add the soap solution and the glycerine mixed with the rest of the water. Stir constantly till quite cold. Then let stand twelve hours, and again stir up for ten minutes.—*Ther. Review.*

PASTILLES OF PHOSPHORUS.

Professor Gartner prepares pastilles of phosphorus thus: An accurately weighed quantity of phosphorus is dissolved in an accurately weighed amount of cacoa butter, and the solution filtered. The fatty solution of phosphorus is then worked into a paste by adding to it cocao powder free from fat; it is then rolled and divided into pastilles so as to contain a definite weight of phosphorus. These pastilles are then varnished with resin, and, after drying, dipped into liquid chocolate. Care must be taken to keep them from the reach of children.—*Pharm. Centralhalle.*

CONCENTRATED SYRUP OF IODIDE OF IRON.

The *Annales de Pharmacie* (*National Druggist*)gives the following directions for preparing a concentrated syrup of iodide of iron, which it claims is exceedingly stable—in fact, may be kept in clear bottles fully exposed to the light without decomposition :

Rub up 4.5 gm. of iodine with 2 gm. of iron, in powder, and sufficient water, until iron iodide is formed. Filter off and add sufficient water to make 17 gm. To this add 15 gm., each of glycerine and simple syrup, and 3 gm. of a 10 per cent. aqueous solution of citric acid. The finished product is about twice as strong in iron iodide as the officinal syrup, and, as stated, is apparently unalterable. The addition of simple syrup at the moment of dispensing is all that is necessary to convert it into the syrup of the Pharmacopœia.

DAHOMEY BLACKING.

Eugene Lemoine gives this name to a shellac in aniline oil, colored by the addition of nigrosin or anilin black. It is brilliant and quick-drying, and is useful for shoes or any article of leather. The rapidity with which it dries depends upon the amount of shellac used, as does also the degree of brilliancy or "shine." An almost instantaneous drier may be obtained by adding a little carbon disulphide, benzin or benzol to the oil.

A NEW LIQUID GLUE.

The *Pharmaceutische Centralhalle* says that gelatin dissolved in an aqueous solution of chloral hydrate makes an excellent liquid cement or glue. The ordinary glue answers for general purposes as well as the more expensive gelatines. The cement thus made is said to be of great adhesiveness, to dry quickly, and preserve indefinitely. The editor of the *National Druggist* can confirm all that our contemporary says of this preparation.

SOME NEW TOILET PREPARATIONS.

We find the following in the *Drogisten Zeitung :*

VINAIGRE DE TOILETTE BOUTLY.

Tincture of calisaya	100 parts.
Tincture of benzoin	100 "
Tincture of styrax	100 "
Tincture of tolu	100 "
Tincture of musk grains	50 "
Tincture of orris root	200 "
Bergamot oil	50 "
Oil of clove	3 "
Oil of neroli bigarade	2 "
Oil of lemon peel	10 "
Tincture of musk	9 "
Acetic acid	250 "

Mix.

EAU DE LYS.

Zinc white	10 parts.
Talc	10 "
Glycerin	20 "
Rose water	2000 "

Mix.

VINAIGRE COSMETIQUE.

Tincture of benzoin	300 parts
Tincture of tolu	300 "
Oil of bitter orange peel	100 "
Oil of lemon	100 "
Oil of bergamot	35 "
Oil of neroli	2 "
Oil of rosemary	1 "
Acetic acid	600 "
Alcohol, 50°, q. s. to make	2500 "

Mix.

—*National Druggist.*

GREASE PAINTS FOR THE FACE—BLACK

1.—Lampblack, best ..... 1 part.
Cacao butter ..... 6 parts.
Oil neroli ..... to perfume.

Melt the cacao butter, add the lampblack, and while cooling make an intimate mixture, adding the perfume toward the last.

2.—Lampblack ..... 1 part.
Oil sweet almonds ..... 1 "
Oil cocoanut ..... 1 "
Perfume ..... as desired.

3.—Lampblack ..... 1 part.
Glycerin ..... a sufficient quantity.

Beat the lampblack into a stiff paste with the glycerin. Apply with a sponge : if necessary, mix a little water with it when using.

WHITE.

Prepared chalk	40 parts.
Zinc white	40 "
Bismuth subnitrate	40 "
Asbestos	40 "
Oil sweet almonds	25 "
Camphor	1 "
Oil peppermint	5 "
Extract " Essence Bouquet "	5 "

PINK.

Zinc white	250 parts.
Bismuth subnitrate	250 "
Asbestos	250 "
Oil sweet almonds	100 "
Camphor	44 "
Oil peppermint	44 "
Extract " Essence Bouquet "	25 "
Eosin	1 "

DARK RED.

Same as above, coloring with ammoniacal solution of carmine.

FLESH.

Prepared chalk	200 parts.
Zinc white	200 "
Powdered orris root	50 "
Cinnabar	30 "
Oil sweet almonds	60 "
Camphor	3 "
Oil peppermint	3 "
Tincture saffron	20 "
Extract " Essence Bouquet "	15 "

—*Merck's Market Report.*

Photographic Notes

AN IMPERVIOUS COATING FOR WOODEN BATHS.

Gutta-percha	50 grammes
Paraffine	50 "

Prepare the mixture over a slow fire and apply with the aid of a metallic brush. After application pass a hot iron to obtain the polish. This coating renders wooden tanks absolutely waterproof, and is not acted on by alkalies or acids.

SELLS' URANIUM INTENSIFIER.

Potassium ferricyanide	ʒss.
Uranium nitrate	ʒij.
Glacial acetic acid	ʒss.
Water	ʒxx.

Dissolve the salts separately ; mix ; allow to stand twenty-four hours ; filter, and add the acetic acid.

This is a much safer preparation to sell than the usual mercurial intensifier. It should be noted on the label that a quarter-of-an-hour's washing is sufficient ; prolonged washing reduces the opacity. Half-pint bottles (which should be of dark glass) sell at 1s.

DIRECT POSITIVES.

Franz Kogelmann suggests the following modification of the Obernetter process of producing positives directly from nature in the camera. The plate, which should be exposed longer than usual, is developed with ferrous oxalate until the high lights, if the plate be viewed from the back, appear quite black. It is then washed in the dark and placed in the following bath :

Bichromate of potash	gr. v.
Alum	gr. 75
Nitric acid	♏ vj.
Sulphuric acid	♏ xij.
Distilled water	ʒxiv.

The solution should be free from chloride. The plate is afterwards thoroughly washed and developed in bright daylight with any good developer until the required density is obtained. It is essential that the silver salt in the high lights should be entirely reduced, so that it may be perfectly dissolved in the bichromate bath, leaving the corresponding parts of the film transparent.—*A "Pharmaceutical Camerist," in Chemist and Druggist.*

REMOVING RUST FROM A LENS.—A lens sometimes requires a brown, rusty stain on the surface, which no amount of rubbing or cleaning will remove. By applying a paste composed of putty powder and water to the stains, and then rubbing briskly with either the point of the finger or the side of the hand, every spot of rust or stain will be removed in a few minutes. This applies to photographic or other lenses, except the object glass of a telescope, which would be irreparably damaged by such treatment.

GLOSSING PLATES.—T. Rogers states that a brilliant surface may be imparted by any gelatin paper, whether bromide paper or gelatino-chloride, by proceeding as follows : "Prepare a sheet of glass of brilliant surface, absolutely free from scratches, and absolutely clean. Warm the plate slightly, and rub roughly over it a lump of pure beeswax. Take a dry, soft flannel rag, warm the plate until the wax melts, and with the rag rub it all over the plate until every portion of the glass is covered. As soon as you are sure of this, commence to rub the wax off again on to the flannel, rubbing slightly in a circular direction, and all over the plate, so that one portion is not left thick with wax when another portion is clean glass. When the wax has almost disappeared from the glass take another flannel, clean, to give a final polishing. Use this exceedingly lightly, and stop as soon as ever the wax becomes invisible over the whole surface of the plate glass. At this stage the glass will be evenly coated with an invisible film of wax, and will have a most brilliant surface. Further rubbing or hard rubbing would entirely remove the wax from portions of the surface, causing the prints to stick to such portions. Take the prints wet from the final washing, let them drip, then lay them one at a time, face downwards, on the plate glass, gently but firmly pressing them into contact, and removing all air-bells by the application of the squeegee. When all the prints have been squeegeed on to the glass, it can be stood on end in a dry, slightly warm place, and when quite dry the prints will peel off by themselves. If the waxing is properly done, the prints should leave the glass perfectly clean. Polish it with a dry rag, and it is ready for next waxing. If thoroughly and carefully waxed, about a dozen times of using will get the glass into a 'ripe' condition, so that several batches of prints may be squeegeed on to it without further waxing. If, when quite dry, the prints stick to the glass so as to tear in drawing off, it proves that the waxing was inefficient."—*English Mechanic and Photography.*

A NON-POISONOUS INTENSIFIER. — Soak the negative in water till soft, then drain and immerse in

Ammonia	1 ounce
Water	1 ounce

for a minute and a half, and then place in

Cadmium bromide	15 grains
Alcohol	35 ounces

till sufficiently intensified.

Some Standard Stock Solutions.

Pyro Solution.

Pyrogallic acid	1 oz. (avoir.)
Potassium metabisulphite	1 oz.
Distilled water to make	9 oz. 55 m.

Dissolve the metabisulphite in 6 ozs. of the water, open the bottle of pyro, and pour on to it the solution of metabisulphite, add sufficient water to make up the full bulk, and bottle immediately. This should not be filtered.

The alkali to be used with this may be either ammonia, soda, potash, or, preferably, the new salt—sodium trabasic phosphate (see below)—and a 10 per cent. solution should be made, using liq. ammonia .880, sodii carb. B.P., or potassii carb. B.P. Besides these a third solution, 10 per cent. of potassium bromide, will also be required.

The pyro solution should be put up in a 10-oz. flat, the alkali in a 10-oz. oval, and a 4-oz. bottle of the bromide will be sufficient to form a set of developing solutions which can be sold for 3s., and yield a far more handsome profit than a patent medicine.

Citrate Restrainers.

The use of the citrates of ammonium, potash, and soda is increasing, their action being different from that of the alkaline bromides, and the amateur photographer always finds a trouble in making these. The chemist will have no trouble, and the B.P. formula for liq. ammon. cit. fort. may be adopted as the basis, and the amount of resultant citrate calculated out, and the directions for diluting so as to form a 10 per cent. solution printed on the label.

Metol Developers.

At the present time some of the newer reducing agents are far more in favor with amateurs, particularly for hand camera or instantaneous work, and the following typical formula has proved very successful :

Metol is possibly an unknown salt to many chemists, but it is the sulphate, chloride, or oxalate salt of mono-methyl-para-amido-meta-cresol, and it is an extremely energetic reducing agent, and gives negatives of great softness and full of gradation which are suitable for printing on all papers, and which are quite free from stain. The only disadvantage it has is that it sometimes attacks the fingers, producing, with constant use, an eczema-like eruption, followed by desquamation and subsequent thickening of the cuticle. If this appears, the only thing to do is to immediately throw up metol, and apply locally ung. hyd. nit., acid carbolic, and lanoline. It is simply due to idiosyncrasy, and some people can use it for months without any trouble, whilst others are attacked at once ; and generally when the eruption has been once acquired, it is impossible to use metol even for one plate without irritation of the skin and small vesicles immediately showing.

The developer is, as usual, in two solutions.

Metol and Hydroquinone Solution,

Metol	80 grains.
Hydroquinone	120 grains.
Sodium sulphite	1½ ounces.
Distilled water to	10 ounces.

Dissolve in the above order.

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The Alkali.

Sodium tribasic phosphate . 300 grains.
Distilled water to .... 10 ounces.

For use, mix one part of the metol solution with three parts of the alkali. It will be noticed there is no bromide suggested, and for instantaneous work it is, advisable to omit it. For time exposure s one grain of bromide of potassium may be added to each ounce of developer.—*Pharmaceutical Journal.*

Starch as a Mountant.*

When starch is used as a mountant, it is, of course, necessary to bring it into a state of disintegration, *not solution*, because starch paste, as made, is not a true solution. The usual plan adopted is to make the starch grains into a cream with cold water, and then pour on, with constant stirring, boiling water until it thickens, about twenty parts of water to one part of starch being the proportion. If, however, the starch paste be subsequently boiled for a few minutes, more complete disintegration takes place, a clearer jelly is obtained, and better keeping properties secured. It is important not to have the starch paste too thick, otherwise it has a tendency to be lumpy when spread over the print. Professor Bothamley states that rice starch is to be preferred, but, after using all kinds, I am disposed to think that there is but little, if anything, to choose between them. There is one peculiar property of starch which, though largely taken advantage of in the arts and manufactures, does not, for some reason or the other, seem to commend itself to photographers. The property to which I allude is that of its conversion at a temperature of about 160° C. (230 F.) into dextrin or British gum, in which state it is perfectly soluble in water. A viscid solution of this I have had by me for years, and it is perfectly good and usable now. The same change is effected by the action of various dilute acids, aided by heat, but the presence of these, though unobjectionable to the calico printer, etc., would hardly be esteemed by the photographer. With regard to the keeping properties of starch, which may interest those who do not care to go to the trouble of making it fresh every time, an objection I quite fail to appreciate, I may say, boil it well to start with, and then add a *small quantity* of some aseptic substance, such as boric acid, salicylic acid, oil of cloves, etc., and it will keep thus in a corked, wide-mouthed bottle for weeks or months. Alum has been suggested, but, although it undoubtedly preserves the paste, its use cannot be recommended for photographic mounting. An objection has been raised against the use of starch as a mountant, on the ground that it contains gluten, which would be likely to cause an acid fermentation, but in none of the samples on the table to-night, numbering sixteen, and obtained from chemists, grocers, oil shops, and wholesale druggists, does this substance exist, neither could it unless it originally existed in the plants from which the starch was obtained, and was intimately associated with it, taking wheat as an example.

* Read before the Croydon Camera Club by J. H. Baldock, F.C.S.

Glossing Prints.

T. Rogers, writing in the *English Mechanic*, gives the following instructions: "To obtain a brilliant surface to any gelatine paper, whether bromide paper or gelatino-chloride, proceed as follows: Prepare a sheet of glass of brilliant surface, absolutely free from scratches, and absolutely clean. Warm the plate slightly, and rub roughly over it a lump of pure beeswax. Take a dry, soft flannel rag, warm the plate until the wax melts, and with the rag rub it all over the plate until every portion of the glass is covered. As soon as you are sure of this, commence to rub the wax off again on to the flannel, rubbing slightly in a circular direction, and all over the plate, so that one portion is not left thick with wax when another portion is clean glass. When the wax has almost disappeared from the glass, take another flannel, clean, to give a final polishing. Use this exceedingly lightly, and stop as soon as ever the wax becomes invisible over the whole surface of the plate glass. At this stage the glass will be evenly coated with an invisible film of wax, and will have a most brilliant surface. Further rubbing or hard rubbing would entirely remove the wax from portions of the surface, causing the prints to stick to such portions. Take the prints wet from the final washing, let them drip, then lay them one at a time, face downward, on the plate glass, gently but firmly pressing them into contact, and removing all air-bells by the application of the squeegee. When all the prints have been squeegeed on to the glass, it can be stood on end in a dry, slightly warm place, and when quite dry the prints will peel off by themselves. If the waxing is properly done, the prints should leave the glass perfectly clean. Polish it with a dry rag, and it is ready for next waxing. If thoroughly and carefully waxed, about a dozen times of using will get the glass into a "ripe" condition, so that several batches of prints may be squeegeed on to it without further waxing. If, when quite dry, the prints stick to the glass so as to tear in drawing off, it proves that the waxing was inefficient.—*Photo-Beacon.*

Potato starch is found by Rouvier (*Comp. rend.*) to behave differently, in the presence of iodine from the starches of wheat and rice, which act alike. The maximum of iodine fixed by potato starch, when the former was in excess, was 18.6 per cent., wheat and rice starch fixing 19.6 per cent. The exact quantity of iodine necessary to transform into iodide all the starch contained in a solution of definite strength was 13.5 per cent. in the case of potato starch, and only about 8.9 per cent. in that of wheat and rice.

Paints and Oils.

The market in paints has been quiet, though prices hold their own. An advance in white lead was looked for, owing to the advance in the price of pig lead, but it is improbable there will now be any change before the fall. Linseed oil remains firm at the advance noted last month. Reports generally indicate a good crop of flaxseed, and the probability is the oil will not be much higher. Cottonseed oil shows a slight decline. In fish oils the price is somewhat lower. Turpentine remains very low. Cod liver oil is firm at previous quotations.

Hard putty may be softened by means of a paste of equal parts of caustic potash and powdered fresh quicklime mixed with water and a little soft soap. The paste is applied over the hard putty. A similar paste is composed of 3 parts quicklime slaked in water and 1 part pearl ash reduced to the consistency of paint. Soft soap is also efficient for the same purpose. It requires about twelve hours.

Oil from Rubber-Tree Seeds.

A suggestion of a new source of income from the India-rubber tree is contained in a pamphlet by Senhor da Cunha, recently published by the state government of Para. According to this author it is probable that before many years elapse an important trade will be developed in the seeds of the rubber-tree, which are very abundant and yield an important quantity of oil which is said to compare favorably with linseed oil. Up to the present time this oil has been extracted only in small quantities, but with the more systematic regulation of the rubber industry which the author predicts, it is expected that the rubber-tree seed will be included among the valuable resources of the country.

If it is, indeed, true that such oil can be made from the seeds of the rubber tree, and one that is similar to linseed oil, it may be th t from this will be produced the ideal rubber substitute. It is a well-known fact that the nearest approaches to a substitute for India-rubber have been made from linseed and kindred oils, and perhaps the oil of the rubber seeds will be exactly what the trade have so long been looking for.—*India Rubber World.*

Various Consistent Lubricants.

Translated by G. B. Heckel from the German of R. Brunner.

From the following collection have been omitted such recipes as have either been proved unsatisfactory, by experiment, or which are evidently merely arbitrary combinations calculated to impose on the ignorant, but certainly without practical value:

ASPHALT AXLE GREASE.

Asphaltum	32 parts.
Black pitch	8 "
Petroleum	8 "
Litharge	8 "
Water	80 "

The asphaltum and the pitch are first melted together in a kettle; the petroleum is then stirred in until the fluid is perfectly homogeneous, after which the litharge is introduced. Finally the water is added in small quantities, and thoroughly incorporated by stirring, after each addition. The asphalt and pitch contained in the lubricant give to it a lustrous black color and a distinctly bituminous odor. The solidity of the compound may be increased or lessened by increasing or diminishing the proportion of petroleum.

NAPHTHALIN LUBRICANT.

Naphthalin	100 parts.
Rape oil	50 to 100 "

The naphthalin, a semi-crystalline product obtained from the coal-tar of gas-works, is melted and mixed with a larger or smaller proportion of rape oil, according to the consistency required in the product. The resultant compound furnishes an exceedingly useful lubricant, of buttery or semi-fluid consistence. By the term naphthalin (and the same holds good of paraffine) the carefully isolated and purified, and accordingly expensive, product is not intended; absolute purity is not at all necessary for the purpose in view; therefore, the comparatively impure crude naphthalin or paraffine is to be used.

ROSIN MACHINE LUBRICANTS.

Rosin	100 parts.
Rosin oil	50 "
Lard	300 "

The rosin is melted in the rosin oil, and the lard thoroughly incorporated with the warm solution.

GRAPHITE AXLE GREASE.

Tallow	36 parts.
Lard	9 "
Palm oil	9 "
Graphite	2 "

Graphite, having a steel-gray color, imparts to this lubricant a dark gray shade. [It must be absolutely free from quartz, etc., for this use.—TRANSLATOR.]

Graphite axle grease is an exceedingly useful composition, and in Belgium and England is very generally used, to the exclusion of all others, for the lubrication of wagon axles.

GRAPHITE GREASE FOR HIGH-SPEED JOURNALS.

Tallow	100 parts.
Graphite	100 "

This grease is excellently adapted for the journals of circular saws, fan-blowers, etc., and especially for all lightly loaded journals running at high speeds.—*Drugs, Oils, and Paints.*

Notes on the Commerce in Vegetable Oils.

By P. L. SIMMONDS, F.L.S.

All plants do not yield oil, but still the list of oil producers is an extensive one. The richest are the cruciferous tribe, and some of the palm fruits. All oils are not good for food or light, some of them being what are termed "drying oils."

The quantity of oil yielded varies, not only in different species, but according to climate and culture. Roughly it may be assumed that oily nuts yield half their weight; colza seed two-fifths; hemp seed one-fourth, and linseed from one-fourth to one-fifth.

Some oils are employed for food, others are burned in lamps; some form the basis of soap, or are used as lubricants, not to mention their employment in painting, in perfumes, and many other economic purposes.

In the manufacture of woollens from ten to fifteen per cent. of oil is required. For the finer kinds of wool, olive and ground-nut oils are used, while for the coarser kinds rape is employed.

The largest source of vegetable oils is the small seeds of plants, and some of them are used for food. The seed of the cotton plant, gingilie, mustard, linseed, and rape seed may be quoted as illustrations of those products, and oils of a very fine quality are procurable from them. The seeds of the common cucumber and those of other cucurbita may be especially cited as yielding an edible oil of delicious and delicate taste, and that of the large cucumber, grown on the Slave Coast, far exceeds in flavor the finest olive oil.

Seed oil is more commonly eaten in India and other hot countries than in England. The seeds of the safflower and the sesamum oils may be added to the list, as representing Indian oils, which are used in cooking grain and other vegetables; whilst in the gloomy forests of Central Africa and in the great mangrove swamps, where the cassava, plantain, and yam are the chief foods, palm oil, and vegetable fats are almost necessaries of life.

In a work which I helped Dr. Edward Smith to bring out some years ago, "On Foods," he observes: "There can be no doubt that we have in this product of seeds of plants, which seem otherwise to be useless,a great storehouse of most valuable nutritive material; and if we know but little of many of them in this climate, it is because we have the olive oil at hand, and are bountifully supplied with many kinds of animal fats. It is, however, probable that the cheapness of some of these vegetable oils, in addition to the delicacy of their flavor, will, ere long, force themselves into notice and obtain a place among our foods."

In China there are a number of edible oils used which do not appear in English commerce, and they have even some mode of purifying castor oil to remove its drastic properties. The enormous demand for oil there, as an article of daily diet, to counteract the binding qualities of rice and other cereal foods in pastry-making, etc., has led to the manufacture of oil from all sorts of sources.

Vegetable fixed oils are usually contained in the seeds of plants, though olive oil and palm oil are extracted from the pulp which surrounds the stone. They are commonly of a thickish consistence and unctuous feel, and differ from volatile oils in leaving a greasy stain on paper, which cannot be removed by heat alone. They are sometimes colorless, occasionally of a greenish or yellowish hue; when pure, semi-transparent, with little smell and a mild taste.

Fixed oils are those which require an intense heat before they give out vapor. The fixed vegetable oils are chiefly expressed, the seeds or raw material being previously ground or bruised, and the pulpy matter subjected to pressure in hempen bags; a gentle heat being generally employed at the same time, to render the oil more liquid. Those which retain their transparency after they have become solid, as linseed, nut, poppy, and hemp seed, are called *drying oils*, while others which assume the appearance of tallow or wax, and become opaque, as olive, almond, rape, and benne, are called *fat oils*.

The former are mostly used for paints, varnishes, and printers' ink; the latter are consumed as food, in medicine, soap-making, and other branches; several of each kind being likewise extensively employed in the arts and in the lubrication of machinery. The division of oils into drying and non-drying is due to the oleine which alters in oxidizing. The product of this alteration is, in non-drying oils, an acid of a disagreeable odor, which irritates the throat; in the drying oils it forms an actual resin.

India and Africa are the chief producing countries of oil-yielding plants. There are over 300 plants known in India to yield oils or perfumes, while those of many other countries also furnish fixed or volatile oils. Some are, however, not articles of any commercial importance.

The port and town of Marseilles, from its facilities for obtaining supplies from Africa and India, is regarded as the principal European centre for oil-crushing and the utilization of oils.

The average import of oil at Marseilles, in each of the five years ending 1893, was 27,643,400 kilogrammes, and the average annual export in the same period was 38,923,200 kilogrammes (of 2 1-5 pounds) per annum.

The progress of the trade in oil seeds and oil at the port of Marseilles has been enormous in the last twenty-five years,and has advanced from 184,986 tons of all kinds in 1870, to 380,279 tons in 1893, of 20 cwt.

The fixed or expressed oils imported into the United States were, in 1890, 20,323,677 pounds free, valued at $1,437,216, and of other oils, dutiable, 687,797 gallons, value $417,388. In 1894, olive oil was imported to the extent of 21,173 gallons, value $23,262, and other fixed oils, 45,470 gallons, value $28,308, dutiable.

The exports from China were, fixed oils (which include benne oil, ground-nut,

- - - DRUGGISTS - - -

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NEW CATALOGUE MAILED ON APPLICATION.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to August 10th, 1895.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal	$4 37	$4 65
Methyl	1 90	2 00
ALLSPICE, lb	13	15
Powdered, lb	15	17
ALOIN, oz	40	45
ANODYNE, Hoffman's bot., lbs	50	55
ARROWROOT, Bermuda, lb	50	55
St. Vincent, lb	15	18
BALSAM, Fir, lb	40	45
Copaiba, lb	65	75
Peru, lb	3 75	4 00
Tolu, can or less, lb	65	75
BARK, Barberry, lb	22	25
Bayberry, lb	15	18
Buckthorn, lb	15	17
Canella, lb	15	17
Cascara, Sagrada	25	30
Cascarilla, select, lb	18	20
Cassia, in mats, lb	18	20
Cinchona, red, lb	60	65
Powdered, lb	65	70
Yellow, lb	35	40
Pale, lb	40	45
Elm, selected, lb	18	20
Ground, lb	17	20
Powdered, lb	20	28
Hemlock, crushed, lb	18	20
Oak, white, crushed lb	15	17
Orange peel, bitter, lb	15	16
Prickly ash, lb	35	40
Sassafras, lb	15	16
Soap (quillaya), lb	13	15
Wild cherry, lb	13	15
BEANS, Calabar, lb	45	50
Tonka, lb	1 50	2 75
Vanilla, lb	6 00	7 50
BERRIES, Cubeb, sifted, lb	30	35
powdered, lb	35	40
Juniper, lb	7	10
Ground, lb	12	14
Prickly ash, lb	40	45
BUDS, Balm of Gilead, lb	55	60
Cassia, lb	25	30
BUTTER, Cacao, lb	75	80
CAMPHOR, lb	70	75
CANTHARIDES, Russian, lb	1 40	1 50
Powdered, lb	1 50	1 60
CAPSICUM, lb	25	30
Powdered, lb	$ 30	35
CARBON, Bisulphide, lb	17	18
CARMINE, No. 40, oz	40	50
CASTOR, Fibre, lb	20 00	20 00
CHALK, French, powdered, lb	10	12
Precip., see Calcium, lb	10	12
Prepared, lb	5	6
CHARCOAL, Animal, powd., lb	4	5
Willow, powdered, lb	20	25
CLOVE, lb	16	17
Powdered, lb	17	18
COCHINEAL, S.G., lb	40	45
COLLODION, lb	75	80
Cantharidal, lb	2 50	2 75
CONFECTION, Senna, lb	40	45
Creosote, Wood, lb	2 00	2 50
CUTTLEFISH BONE, lb	25	30
DEXTRINE, lb	10	12
DOVER'S POWDER, lb	1 50	1 60
ERGOT, Spanish, lb	75	80
Powdered, lb	90	1 00
Ergotin, Keith's, oz	2 00	2 10
EXTRACT, Logwood, bulk, lb	13	14
Pounds, lb	14	17
FLOWERS, Arnica, lb	15	20
Calendula, lb	55	60
Chamomile, Roman, lb	30	35
German, lb	40	45
Elder, lb	20	22
Lavender, lb	12	15
Rose, red, French, lb	1 60	2 00
Rosemary, lb	25	30
Saffron, American, lb	65	70
Spanish, Val'a, oz	1 00	1 25
GELATINE, Cooper's, lb	75	80
French, white, lb	35	40
GLYCERINE, lb	17	18
GUARANA	3 00	3 25
Powdered, lb	3 25	3 50
GUM ALOES, Cape, lb	18	20
Barbadoes, lb	30	50
Socotrine, lb	65	70
Asafœtida, lb	40	45
Arabic, 1st, lb	65	70
Powdered, lb	75	85
Sifted sorts, lb	40	45
Sorts, lb	25	30
Benzoin, lb	50	1 00
Catechu, Black, lb	9	20
Gamboge, powdered, lb	1 20	1 25
Guaiac, lb	50	1 00
Powdered, lb	70	75
Kino, true, lb	2 00	2 25
Myrrh, lb	$ 45	$ 48
Powdered, lb	55	60
Opium, lb	4 00	4 25
Powdered, lb	5 75	6 00
Scammony, pure Resin, lb	12 80	13 00
Shellac, lb	45	48
Bleached, lb	45	50
Spruce, true, lb	30	35
Tragacanth, flake, 1st, lb	75	80
Powdered, lb	1 00	1 10
Sorts, lb	45	65
Thus, lb	8	10
HERB, Althea, lb	27	30
Bitterwort, lb	27	30
Burdock, lb	16	18
Boneset, ozs, lb	15	17
Catnip, ozs, lb	17	20
Chiretta, lb	25	30
Coltsfoot, lb	20	38
Feverfew, ozs, lb	53	55
Grindelia robusta, lb	45	50
Horehound, ozs., lb	17	20
Jaborandi, lb	45	50
Lemon Balm, lb	38	40
Liverwort, German, lb	38	40
Lobelia, ozs, lb	15	20
Motherwort, ozs., lb	20	22
Mullein, German, lb	17	20
Pennyroyal, ozs., lb	18	20
Peppermint, ozs., lb	21	22
Rue, ozs., lb	30	35
Sage, ozs., lb	18	20
Spearmint, lb	21	25
Thyme, ozs., lb	18	20
Tansy, ozs., lb	15	18
Wormwood, oz	20	22
Yerba Santa, lb	38	44
HONEY, lb	13	15
HOPS, fresh, lb	20	25
INDIGO, Madras, lb	75	80
INSECT POWDER, lb	25	28
ISINGLASS, Brazil, lb	2 00	2 10
Russian, true, lb	6 00	6 50
LEAF, Aconite, lb	25	30
Bay, lb	18	20
Belladonna, lb	25	30
Buchu, long, lb	50	55
Short, lb	20	22
Coca, lb	35	40
Digitalis, lb	15	20
Eucalyptus, lb	18	20
Hyoscyamus	20	25
Matico, lb	70	75

Senna, Alexandria, lb	$ 25	$ 30
Tinnevelly, lb	15	25
Stramonium, lb	20	25
Uva Ursi, lb	15	18
LEECHES, Swedish, doz	1 00	1 10
LICORICE, Solazzi	45	50
Pignatelli	35	40
Grasso	30	35
Y & S—Sticks, 6 to 1 lb., per lb.	27	30
" Purity, 100 sticks in box	75	75
" Purity, 200 sticks in box	1 50	1 50
" Acme Pellets, 5 lb. tins	2 00	2 00
" Lozenges, 5 lb. tins	1 50	1 75
" Tar, Licorice, and Tolu, 5 lb. tins	2 00	2 00
LUPULIN, oz	30	35
LYCOPODIUM, lb	70	80
MACE, lb	1 20	1 25
MANNA, lb	1 60	1 75
Moss, Iceland, lb	9	10
Irish, lb	9	10
MUSK, Tonquin, oz	46 00	50 00
NUTGALLS, lb	21	25
Powdered, lb	25	30
NUTMEGS, lb	1 00	1 10
NUX VOMICA, lb	10	12
Powdered, lb	25	27
OAKUM, lb	12	15
OINTMENT, Merc., lb. ½ and ½	70	75
Citrine, lb	45	50
PARALDEHYDE, oz	20	22
PEPPER, black, lb	12	13
Powdered, lb	15	16
PITCH, black, lb	3	4
Bergundy, true, lb	10	12
LASTER, Calcined, bbl. cash	2 25	3 25
Adhesive, yd	12	13
Belladonna, lb	65	70
Galbanum Comp., lb	80	85
Lead, lb	25	30
POPPY HEADS, per 100	1 00	1 10
ROSIN, Common, lb	2½	3
White, lb	3½	4
RESORCIN, white, oz	25	30
ROCHELLE SALT, lb	25	28
ROOT, Aconite, lb	22	25
Althea, cut, lb	30	35
Belladonna, lb	25	30
Blood, lb	15	16
Bitter, lb	27	30
Blackberry, lb	15	18
Burdock, crushed, lb	18	20
Calamus, sliced, white, lb	20	25
Canada Snake, lb	30	35
Cohosh, black, lb	15	20
Colchicum, lb	40	45
Columbo, lb	20	22
Powdered, lb	25	30
Coltsfoot, lb	38	40
Comfrey, crushed, lb	20	25
Curcuma, p owdered, lb	13	14
Dandelion, lb	15	18
Elecampane, lb	15	20
Galangal, lb	15	18
Gelsemium, lb	22	25
Gentian or Genitan, lb	9	10
Ground, lb	10	12
Powdered, lb	13	15
Ginger, African, lb	18	20
Po., lb	20	22
Jamaica, blchd., lb	27	30
Po., lb	30	35
Ginseng, lb	4 50	4 75
Golden Seal, lb	75	80
Gold Thread, lb	90	95
Hellebore, white, powd., lb	12	15
Indian Hemp	18	20
Ipecac, lb	1 30	1 50
Powdered, lb	1 60	1 70
Jalap, lb	55	60
Powdered, lb	60	65
Kava Kava, lb	40	90
Licorice, lb	12	15
Powdered, lb	13	15
Mandrake, lb	13	18
Masterwort, lb	16	40
Orris, Florentine, lb	30	35
Powdered, lb	40	45
Pareira Brava, true, lb	40	45
Pink, lb	40	45
Parsley, lb	30	35
Pleurisy, lb	20	25
Poke, lb	15	18
Queen of the Meadow, lb	$ 18	$ 20
Rhatany, lb	20	30
Rhubarb, lb	75	2 50
Sarsaparilla, Hond, lb	40	45
Cut, lb	50	55
Senega, lb	55	65
Squill, lb	13	15
Stillingia, lb	22	25
Powdered, lb	25	27
Unicorn, lb	38	40
Valerian, English, lb. true	20	25
Virginia, Snake, lb	40	45
Yellow Dock, lb	15	18
RUM, Bay, gal	2 50	2 75
Essence, lb	3 00	3 25
SACCHARIN, oz	1 25	1 50
SEED, Anise, Italian, sifted, lb	13	15
Star, lb	35	40
Burdock, lb	30	35
Canary, bag or less, lb	5	6
Caraway, lb	10	13
Cardamom, lb	1 25	1 50
Celery	30	35
Colchicum	50	60
Coriander, lb	10	12
Cumin, lb	15	20
Fennel, lb	15	17
Fenugreek, powdered, lb	7	9
Flax, cleaned, lb	3½	4
Ground, lb	4	5
Hemp, lb	5	6
Mustard, white, lb	11	12
Powdered, lb	15	20
Pumpkin	25	30
Quince, lb	65	70
Rape, lb	8	9
Strophanthus, oz	50	55
Worm, lb	22	25
SEIDLITZ MIXTURE, lb	25	30
SOAP, Castile, Mottled, pure, lb	10	12
White, Conti's, lb	15	16
Powdered, lb	25	35
Green (Sapo Viridis), lb	15	25
SPERMACETI, lb	55	60
TURPENTINE, Chian, oz	75	80
Venice, lb	10	12
WAX, White, lb	50	75
Yellow	40	45
WOOD, Guaiac, rasped	5	6
Quassia chips, lb	10	12
Red Saunders, ground, lb	5	6
Santal, ground, lb	5	6

CHEMICALS.

ACID, Acetic, lb	12	13
Glacial, lb	45	50
Benzoic, English, oz	20	25
German, oz	10	12
Boracic, lb	13	14
Carbolic Crystals, lb	25	30
Calvert's No. 1, lb	2 10	2 15
No. 2, lb	1 35	1 40
Citric, lb	45	50
Gallic, oz	10	12
Hydrobromic, diluted, lb	30	35
Hydrocyanic, diluted, oz. bottles doz	1 50	1 60
Lactic, concentrated, oz	22	25
Muriatic, lb	3	5
Chem, pure, lb	18	20
Nitric, lb	10½	13
Chem. pure, lb	25	30
Oleic, purified, lb	75	80
Oxalic, lb	12	13
Phosphoric, glacial, lb	1 00	1 10
Dilute, lb	13	17
Pyrogallic, oz	35	38
Salicylic, white, lb	1 00	1 10
Sulphuric, carboy, lb	2½	2¾
Bottles, lb	5	6
Chem. pure, lb	18	20
Tannic, lb	80	85
Tartaric, powdered, lb	30	32
ACETANILID, lb	80	85
ACONITINE, grain	4	5
ALUM, cryst., lb	1¾	3
Powdered, lb	3	4
AMMONIA, Liquor, lb., .880	8½	10
AMMONIUM, Bromide, lb	80	85
Carbonate, lb	14	15
Iodide, oz	35	40
Nitrate, crystals, lb	40	45
Muriate, lb	12	16
Valerianate, oz	$ 55	$ 60
AMYL, Nitrite, oz	16	18
ANTINERVIN, oz	85	00
ANTIKAMNIA	1 25	1 30
ANTIPYRIN, oz	1 00	1 10
ARISTOL, oz	1 85	2 00
ARSENIC. Donovan's sol., lb	25	30
Fowler's sol., lb	10	13
Iodide, oz	50	55
White, lb	6	7
ATROPINE, Sulp. in ⅛ ozs. 80c., oz	6 00	6 25
BISMUTH, Ammonia-citrate, oz	35	40
Iodide, oz	50	55
Salicylate, oz	25	30
Subcarbonate, lb	2 25	2 40
Subnitrate, lb	1 75	1 80
BORAX, lb	7	8
Powdered, lb	8	9
BROMINE, oz	8	13
CADMIUM, Bromide, oz	20	25
Iodide, oz	45	50
CAFFEINE, oz	60	65
Citrate, oz	60	65
CALCIUM, Hypophosphite, lb	1 50	1 60
Iodide, oz	95	1 00
Phosphate, precip., lb	35	38
Sulphide, oz	5	6
CERIUM, Oxalate, oz	10	12
CHINOIDINE, oz	15	18
CHLORAL, Hydrate, lb	1 25	1 30
Croton, oz	75	80
CHLOROFORM, lb	60	1 90
CINCHONINE, sulphate, oz	25	30
CINCHONIDINE, Sulph., oz	15	20
COCAINE, Mur., oz	6 50	8 00
CODEIA, ¼ oz	80	90
COLLODION, lb	65	70
COPPER, Sulph., (Blue Vitriol) lb.	6	7
Iodide, oz	65	70
COPPERAS, lb	1	3
DIURETIN, oz	1 60	1 65
ETHER, Acetic, lb	75	80
Sulphuric, lb	40	50
EXALGINE, oz	1 00	1 10
HYOSCYAMINE, Sulp., crystals, gr.	25	30
IODINE, lb	4 75	5 50
IODOFORM, lb	6 00	7 00
IODOL, oz	1 40	1 50
IRON, by Hydrogen	80	85
Carbonate, Precip., lb	15	16
Sacch , lb	30	35
Chloride, lb	45	55
Sol., lb	13	16
Citrate, U.S.P., lb	90	1 00
And Ammon., lb	70	75
And Quinine, lb	1 50	3 00
Quin. and Stry., oz	18	30
And Strychnine, oz	13	15
Dialyzed, Solution, lb	50	55
Ferrocyonide, lb	55	60
Hypophosphites, oz	25	30
Iodide, oz	40	45
Syrup, lb	40	45
Lactate, oz	5	6
Pernitrate, solution, lb	15	16
Phosphate scales, lb	1 25	1 30
Sulphate, pure, lb	7	9
Exsiccated, lb	8	10
And Potass. Tartrate, lb	80	85
And Ammon Tartrate, lb	80	85
LEAD, Acetate, white, lb	13	15
Carbonate, lb	7	8
Iodide, oz	35	40
Red, lb	7	9
LIME, Chlorinated, bulk, lb	4	5
In pakages, lb	6	7
LITHIUM, Bromide, oz	30	35
Carbonate, oz	30	35
Citrate, oz	25	30
Iodide, oz	50	55
Salic ate, oz	35	40
MAGNESIUM, Calc., lb	55	60
Carbonate, lb	18	20
Citrate, gran., lb	35	40
Sulph. (Epsom salt), lb	1¾	3
MANGANESE, Black Oxide, lb	5	7
MENTHOL, oz	55	66
MERCURY, lb	75	80
Ammon (White Precip.)	1 25	1 30
Chloride, Corrosive, lb	1 00	1 10
Calomel, lb	1 00	1 10
With Chalk, lb	60	65

tea seed, and wood oils), in piculs of 133⅓ pounds.

From British India the fixed oils exported are chiefly castor oil, 3,000,000 gallons yearly; cocoanut oil, 1,500,000 gallons; a small quantity of til, or gingilie (sesame), 250,000 gallons, and of other kinds of oil, about 300,000 gallons. The volatile or essential oils exported from India are now about 18,000 gallons, valued at £44,000.

The specific gravity of oils has been carefully determined, and is of some consequence. To be of value, the specific gravity should be carefully taken at a temperature of 60° Fahr. The oliometre should be marked with ordinary specific gravity degrees, water being 1,000, and the face allowed on the stem for each degree should not be less than one-tenth of an inch. As a rough rule, 1° of gravity may be substituted for every 2½ per cent. excess of temperature above 60° Fahr.—*American Journal of Pharmacy.*

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the *special consideration* of the Business Notices.

Enamelled Letters.

Enamelled letters make one of the most attractive and neatest of signs. These and other lines are advertised by Wm. Sedgwick on page 178a of this issue.

Show Cases and Fixtures.

The London Show Case Co., whose advertisement appears elsewhere, manufacture a full line of show cases for wall and counter use; also shop fixtures, counters, etc. Send for their catalogue.

Soaps.

Two specially good lines advertised this month by the Albert Toilet Soap Co.—Baby's Own (everyone knows it) and Oxgall Carpet Soap. The well-known superior quality of soaps manufactured by this firm makes them "leaders" with the drug trade.

School of Pharmacy.

The Michigan College of Pharmacy, located at Ann Arbor, Mich., is one of the leading pharmaceutical schools of the United States. A large number of Canadians have already taken courses of instruction at this college, and are warm in its praise. See advertisement in this issue.

A New Home for the "Little" One.

O. & W. Thum Co. are adding a substantial brick structure, 50 feet by 80 feet, to their plant, for the better accommodation of their "Little" Tanglefoot, it having already outgrown the quarters assigned it in the regular plant, in this its first year.

This season's sales demonstrate that the new baby is thoroughly appreciated, that it will prosper and become a worthy member of the Tanglefoot family. In reward for its good behavior it gets a house of its own.

Books and Magazines.

"The Pocket Materia Medica and Therapeutics." A resumé of the action and doses of all officinal and non-officinal drugs now in common use. By C. Henri Leonard, A.M., M.D., Professor of the Medical and Surgical Diseases of Women and Clinical Gynæcology in the Detroit College of Medicine; member of the American Medical Association, etc., etc. Second edition; revised and enlarged; cloth, large 16 mo., 367 pages; price, postpaid, $1; Detroit, 1895. The Illustrated Medical Journal Co., Publishers.

The second edition of this popular therapeutic work has had sixty-seven pages added to it, besides typographical errors corrected, etc. A new and complete cross-index has been prepared, which renders the quick finding of a non-familiar drug possible. This is an important feature lacking in many ready-reference books. It is a "down-to-date book," and this, with unique arrangement of its description of drugs and compounds, secured for the first edition an order by cablegram for 1,000 copies from Bailleire, Tindall & Co., one of the largest medical publishing houses in London; a compliment rarely paid any American book. It has also been a popular book with physicians, pharmacists, and students on this side of the water, judging from the early exhaustion of the first edition.

The descriptive arrangement of the drugs is as follows: Alphabetically the drug, with its pronunciation (officinal or non-officinal standing indicated), genitive case-ending, common name, dose and metric dose. Then the English, French, and German synonyms. If a plant, the part used, habitat, natural order, botanic description, with alkaloids, if any; if a mineral, its chemical symbol, atomic weight, looks, taste, how found, its peculiarities. Then the action and uses of the drug or compound, its antagonists, its incompatibles, its synergists, and then antidotes. Then follow its officinal and non-officinal preparations, with their medium and maximum doses. Altogether, it is a handy volume for physician, druggist, or student, and will be frequently appealed to if in one's possession.

The *Pharmaceutical Journal* is the new title of the well-known English periodical, *Pharmaceutical Journal and Transactions.* This valuable journal has now attained its fifty-fifth year, and with its new series comes to us improved in appearance and shape and a more extended list of contents for its readers. In addition to its usual amount of reading matter, which has been largely increased by additional pages, it has a supplement, in which photography occupies a large space.

A MIDSUMMER MAGAZINE.—Frank R. Stockton, the author of "The Lady, or the Tiger?" contributes under the title of "Love Before Breakfast" one of the most delightful love stories to the August *Ladies' Home Journal.* The happy motif of Mr. Stockton's story is more than indicated by the charming illustrations which Mr. W. T. Smedley has provided for the text. Dr. Parkhurst writes wisely and well of "The Training of a Child," giving advice which cannot fail to be of value to parents everywhere. This midsummer number, which goes out to its hundreds of thousands of readers in a cover presenting Albert Lynch's famous panel of Spring, which won for him the Salon prize in 1893, is worth ten times its price of ten cents, and no woman should be without it. Published by The Curtis Publishing Company, of Philadelphia, for ten cents per number, and one dollar per year.

Not since "The Anglomaniacs" has there been so clever a society satire as Henry Fuller's "Pilgrim Sons," which is published in the August *Cosmopolitan.* The problems solved in woman's use of the bicyle are so startling and so numerous, under the rapid evolution of this art, that one welcomes a careful discussion of the subject by so trained a mind and so clever a writer as Mrs. Reginald de Koven. The *Cosmopolitan* illustrates Mrs. de Koven's article with a series of poses by professional models. A new sport, more thrilling than any known to Nimrod, more dangerous than was ever experienced by even a Buffalo Bill, is exploited in the same issue in an article on "Photographing Big Game in the Rocky Mountains," before shooting. The idea that ten cents for the *Cosmopolitan* means inferiority from a literary point of view is dispelled by the appearance in this number of such writers as Sir Lewis Morris, Sir Edwin Arnold, Edgar Fawcett, Tabb, W. Clark Russell, Lang, Sarcey, Zangwill, Agnes Repplier, etc. Nor can we entertain the idea of inferiority in illustration with such names as Hamilton Gibson, Denman, Van Schaick, Lix, Sandham, etc., figuring as the chief artists of a single month's issue.

TASTELESS CREOSOTE.—This is a German pharmaceutical novelty, and consists of creosote rubbed up with magnesia. After hardening, which it does very soon, the resultant substance is powdered and suspended in syrup. The preparation is usually so made that it contains 10 per cent. of creosote.

Advertising is like a bellows; it makes the fire of trade burn with greater vigor.

Iodide, Proto, oz	$ 35	$ 40
Bin., oz	25	30
Oxide, Red, lb	1 15	1 20
Pill (Blue Mass), lb	70	75
MILK SUGAR, powdered, lb	30	35
MORPHINE, Acetate, oz	1 75	1 80
Muriate, oz	1 75	1 80
Sulphate, oz	1 75	1 80
PEPSIN, Saccharated, oz	35	40
PHENACETINE, oz	35	38
PILOCARPINE, Muriate, grain	35	38
PIPERIN, oz	1 00	1 10
PHOSPHORUS, lb	90	1 10
POTASSA, Caustic, white, lb	60	65
POTASSIUM, Acetate, lb	35	40
Bicarbonate, lb	15	17
Bichromate, lb	14	15
Bitrat (Cream Tart.), lb	23	25
Bromide, lb	65	70
Carbonate, lb	12	13
Chlorate, Eng., lb	18	20
Powdered, lb	20	22
Citrate, lb	70	75
Cyanide, lb	40	50
Hypophosphites, oz	10	12
Iodide, lb	4 00	4 10
Nitrate, gran, lb	8	10
Permanganate, lb	40	45
Prussiate, Red, lb	50	55
Yellow, lb	32	35
And Sod. Tartrate, lb	25	30
Sulphuret, lb	25	30
PROPLYLAMINE, oz	35	46
QUININE, Sulph, bulk	30	32
Ozs., oz	36	40
QUINIDINE, Sulphate, ozs., oz	16	20
SALICIN, lb	3 75	4 00
SANTONIN, oz	20	22
SILVER, Nitrate, cryst, oz	90	1 00
Fused, oz	1 00	1 10
SODIUM, Acetate, lb	30	35
Bicarbonate, kgs., lb	2 75	3 00
Bromide, lb	65	70
Carbonate, lb	3	6
Hypophosphite, oz	10	12
Hyposulphite, lb	3	6
Iodide, oz	$ 40	$ 43
Salicylate, lb	1 75	1 80
Sulphate, lb	2	5
Sulphite, lb	8	10
SOMNAL, oz	85	00
SPIRIT NITRE, lb	35	65
STRONTIUM, Nitrate, lb	18	20
STRYCHNINE, crystals, oz	80	85
SULFONAL, oz	40	42
SULPHUR, Flowers of, lb	2½	4
Pure precipitated, lb	13	20
TARTAR EMETIC, lb	50	55
THYMOL (Thymic acid), oz	55	60
VERATRINE, oz	2 00	2 10
ZINC, Acetate, lb	70	75
Carbonate lb	25	30
Chloride, granular, oz	13	15
Iodide, oz	60	65
Oxide, lb	13	60
Sulphate, lb	9	11
Valerianate, oz	25	30
ESSENTIAL OILS.		
OIL, Almond, bitter, oz	75	80
Sweet, lb	50	60
Amber, crude, lb	40	45
Rec't, lb	60	65
Anise, lb	3 00	3 25
Bay, oz	50	60
Bergamot, lb	3 75	4 00
Cade, lb	90	1 00
Cajuput, lb	1 60	1 70
Capsicum, oz	60	65
Caraway, lb	2 75	3 00
Cassia, lb	1 75	1 80
Cedar	55	85
Cinnamon, Ceylon, oz	2 75	3 00
Citronelle, lb	80	85
Clove, lb	1 20	1 30
Copaiba, lb	1 75	2 00
Croton, lb	1 50	1 75
Cubeb, lb	2 50	3 00
Cumin, lb	5 50	6 00
Erigeron, oz	20	25
Eucalyptus, lb	1 50	1 75
Fennel, lb	1 60	1 75
Geranium, oz	$1 75	$1 80
Rose, lb	3 20	3 50
Juniper berries (English), lb	4 50	5 00
Wood, lb	70	75
Lavender, Chiris. Fleur, lb	3 00	3 50
Garden, lb	1 50	1 75
Lemon, lb	1 75	1 80
Lemongrass, lb	1 50	1 60
Mustard, Essential, oz	60	65
Neroli, oz	4 25	4 50
Orange, lb	2 75	3 00
Sweet, lb	2 75	3 00
Origanum, lb	65	70
Patchouli, oz	80	85
Pennyroyal, lb	2 50	2 75
Peppermint, lb	3 60	3 75
Pimento, lb	2 60	2 75
Rhodium, oz	80	85
Rose, oz	7 50	11 00
Rosemary, lb	70	75
Rue, oz	25	30
Sandalwood, lb	5 50	7 50
Sassafras, lb	75	80
Savin, lb	1 60	1 75
Spearmint, lb	3 75	4 00
Spruce, lb	65	70
Tansy, lb	4 25	4 50
Thyme, white, lb	1 80	1 90
Wintergreen, lb	2 75	3 00
Wormseed, lb	3 50	3 75
Wormwood, lb	4 25	4 50
FIXED OILS.		
CASTOR, lb	9	11
COD LIVER, N.F., gal	1 25	1 30
Norwegian, gal	2 50	2 75
COTTONSEED, gal	1 10	1 20
LARD, gal	90	1 00
LINSEED, boiled, gal	62	65
Raw, gal	60	62
NEATSFOOT, gal	1 20	1 30
OLIVE, gal	1 20	1 25
Salad, gal	2 50	2 60
PALM, lb	12	13
SPERM, gal	1 40	1 45
TURPENTINE, gal	60	65

The Standard Brands.
MILLIONS OF EACH BRAND Sold Annually
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S. DAVIS & SONS MONTREAL, P.Q.

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D. RITCHIE & CO., - - Montreal.

Drug Reports.

Canada.

August is usually one of the quietest months in business, and the drug business is no exception. The market for the past month shows but little life, and the changes in value are few. There are not wanting, however, indications of an increasing volume of business, and a decided improvement in trade towards fall is confidently looked for. The crop prospects, on the whole, are favorable. British Columbia, the Northwest Territories, and Manitoba report a decided increase on last year's production. Ontario west has suffered somewhat from drought, but the eastern portion, together with Quebec and the provinces "down by the sea," all promise abundant harvests. We have to report but few changes in prices.

Opium remains about the same, muriate cocaine still lower, camphor firm at last month's prices, hyposulphite of soda advanced, and cream of tartar advancing.

England.

London, July 27th, 1895.

The market during the month has remained fairly steady, but with little demand. Alterations, therefore, are of small importance. Ipecacuanha has improved in value, and there has been a considerable advance in English oil of peppermint, owing to the unfavorable state of the crop. Cod liver oil remains unchanged, and balsam of copaiba maintains its higher figure. The new crop of Dalmatian insect flowers is realizing higher rates. Quinine is unsaleable, opium quiet and dull. The difficulty of obtaining Goa powder of good quality has caused an advance in the price of chrysophanic acid. Carbolic acid is fractionally lower, and cream of tartar slightly advanced.

The Japanese Monopoly of Camphor.

The *Spectator* remarks that it is a curious incident of the cession of Formosa that it directly affects every druggist in Europe, since camphor is produced only in Japan and Formosa. The Japanese, knowing that, have limited and taxed its export, and the price of the article is going up by leaps and bounds. Like all drugs that are greatly wanted, our contemporary points out, camphor will bear a high price and great fluctuations in its value; "but if the Japanese push their advantage too far, science will avenge herself and provide a substitute. There is a substitute for everything somewhere, even for quinine, and greediness in selling, if pushed beyond a certain point, always ensures its production."—*Pharmaceutical Journal.*

If you would make money, read the advertisements in this journal. And when you order goods, mention the CANADIAN DRUGGIST.

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VII. TORONTO, SEPTEMBER, 1895. No. 9

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

Subscription, $1 per year in advance.

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New advertisements or changes to be addressed

Canadian Druggist,
20 Bay St. TORONTO, ONT.

EUROPEAN AGENCIES:
ENGLAND: Aldermary House, 60 Watling Street, London, E. C.
FRANCE: 5 Rue de la Bourse, Paris.

CONTENTS.

Prostitution of Position.
The Camphor Trade of Tainan, China.
Asbestos Towels.
Finely Balanced Scales.
Pharmacy in England.
The Transition Period.
TRADE NOTES
Montreal Notes.
Nova Scotia Notes
Weight of Drops of Various Liquid Medicaments.
CORRESPONDENCE.
Counter Prescribing.
Selling to Department Stores.
The Educational Question.
Animal Oils and the New Pharmacopœia.
American Pharmaceutical Association.
Quebec Pharmaceutical Association.
Montreal College of Pharmacy.
The Friend of Pharmacy.
Tripoli Sponge Fishery.
Side Lines for Druggists.
Influence of Trade Journals.
N.W.D.A.
Valkyrie's Pilot.
A Cheap Druggist.
Acknowledgment.
College Announcement.
EDITORIALS.
A Reflection.
Cut Prices in Hamilton.
To Casual Contributors.
The Metric System.
The Lofoten Islands and their Principal Product.
Practical Optics for Chemists.
A Canadian Pharmacist on African Affairs.
The Continental Method of Emulsification applied to Every-Day Dispensing.
Another Bismuth Drop.
PHARMACEUTICAL NOTES.
The Kola Nut.
Balsam of Tolu as a Pill.
FORMULARY.
Camphor as a Germicide.
PHOTOGRAPHIC NOTES.
PHARMACY ABROAD.
Customs Decisions.
BUSINESS NOTICES
BOOKS AND MAGAZINES.
DRUG REPORTS.

Prostitution of Position.

The institution of a drug department in some of our large city departmental stores has brought about a condition of debasement which is discreditable to the participants, and to the calling which they represent. When young men enter the drug business as *bona fide* principals, they do so with some prospect of attaining an honorable position in society, and of securing the respect of their confrères; but when they ignobly lend themselves to capitalists to lower the standing of the calling they are supposed to be worthy members of, they have taken a step from which they cannot recover, and which may, in later years, retard their own advancement. At the present moment several of our young Ontario graduates are employees of owners of businesses of the character referred to. They have foolishly and thoughtlessly, we believe, taken such positions as a temporary opportunity for employment, forgetting that in so doing they are giving their talents for hire to undermine a profession which it is their duty, and should be their chief aim, to support. Those who demean themselves in this way are assuredly either thoughtless, selfish, or devoid of any of the finer feelings which induce the strict observance of an unwritten code of ethics. Their reasoning faculties are not of the highest order when they can only anticipate the result of their week's work as so many dollars on pay day. When a day of retribution does overtake them, their first plaint is that the college is at fault because it doesn't protect them against the very kind of trade which they have been the means of fostering. Such men are unworthy of being retained on the roll of licensed graduates, and we believe that we are voicing the general opinion of the trade when we say that it is a pity they are lawfully permitted to continue a debasement of the profession which gave them birth.

The Camphor Trade of Tainan, China.

The last year shows a satisfactory development of the camphor trade, 13,971 cwts. having left the port, as against 7,530 cwts. in 1893, an increase of eighty-five per cent. The best camphor forests are situated on the borders of savage territory, and the Chinese operatives, when cutting down trees and camphor distilling, are liable to attacks by the savages. The hazardous nature of the occupation suggested to the Chinese authorities the levy of an impost, known as "fang fei," or protection tax, on all camphor produced, to pay for the maintenance of frontier guards to protect the camphor workers. Recently, owing to the exigencies of coast defence, the camphor districts have been largely denuded of troops, whose services are required elsewhere. The continuance of the levy has caused a certain amount of discontent on the part of the foreign merchants, as they say that their operations are at present receiving merely nominal protection. Some outrages by savages have recently been reported at places called Bakhialang and Kato Ke, in the district of Chip Chip. The camphor stills have been destroyed, and operators murdered, and, so far, the savages have not been punished. — *Oil and Colorman's Journal.*

Asbestos Towels.

These are one of the curiosities of the market. When dirty it is only necessary to throw them into a red hot fire, and after a few minutes draw them out fresh and clean.

Finely-Balanced Scales.

Wonderful stories have been told concerning the extreme delicacy of the scales used by the mints at Philadelphia and London. That at the first-named place is said to tell the exact weight of a hair. The London wonder shows a difference in the weight of a card after a name has been written on it. The most accurate scale in the world is now being discussed in England. It is so finely balanced that it shows the weight of a candle or taper to be less after the flame has been extinguished.

KOCHEIN.—Synonym for tuberculin.

Pharmacy in England.

(From Our Own Correspondent.)

British Pharmaceutical Conference.—The event of the month is the meeting of the British Pharmaceutical Conference at Bournemouth. Following my usual custom, I will only give a brief abstract of each of the papers, which will doubtless be printed in full, where of sufficient interest, after their appearance in the official journal. Members were welcomed by the deputy mayor and some of the local medical men, whilst all the pharmacists in the neighborhood were there. Mr. N. H. Martin, the president, delivered his address, and those who thought that his mood on this occasion would change, and that he would throw off the critic's garb, were disappointed. Indeed, Mr. Martin never appears happy unless he is putting some one right or something straight—according to his own ideas. With his sturdy views on the professional aspect of pharmacy many will sympathize; but his tilting against pharmacy practising "the baser methods of trade" is Quixotic, and his objection to the admission of associates of the Pharmaceutical Society to the privileges of membership is illogical.

Ipecacuanha was the subject of three papers; Cripps confirmed Paul's analyses of emetine and the absence of any volatile alkaloid. Greenish reported on a number of samples of powdered ipecacuanha that he had microscopically examined. Out of 32 specimens 12 were Carthagena and the remaining 20 Brazilian. Only 7 were described as inferior owing to the undue proportion of stem. Bird suggested an acetic extract of ipecacuanha, made first by percolating with rectified spirit, acidulated with acetic acid, and then percolating with a mixture of water and acetic acid. The two percolates are evaporated to dryness and mixed. Sandal-wood oil may be checked for purity, according to Parry, by acetylation and then saponification with alcoholic potash. Parry and Sage also gave some interesting figures respecting cod-liver oil. Farr and Wright reported unfavorably, on the whole, upon tinctures as obtained from average pharmacists. The moral that they wished to point was that standardization as recommended by them should be adopted. J. C. Umney gave the physical constants of true *oleum pini sylvestris*, as compared with other pine oils. White recorded his experience in sterilizing surgical bandages, glass being replaced as a receptacle in favor of tinned copper. Elborne entered an amusing protest against the introduction of the metric system alongside of the imperial weights and measures. Dr. Symes drew attention to the new B.P. by suggesting that therapeutic notes embodied in the work would be more likely to lead prescribers to order pharmacopœial remedies. He also favored a secondary list of drugs that were still under trial and others that were becoming obsolete. Bird described a still for the recovery of spirit remaining in tincture marcs. Naylor tried to explain the smell often noticeable in syr. hypophos. co. as due to sulphites—impurities in the hypophosphites. Jones sent a new alarm to attach to the receivers of stills likely to run over if not watched. Braithwaite gave some particulars about Tolu, and Liverseege & Davis sent some experimental data respecting tincture of lobelia and tincture of cinchona.

At the conclusion, Liverpool was decided upon for next year's meeting, and Mr. Martindale was elected president. The social proceedings were eminently succcessful, and much enjoyed by all those present.

Cachets.—The use of cachets for the administration of nauseous or insoluble powders has distinctly grown during the last year or two, hence I was not at all unprepared to find that they have already suffered a considerable fall in price owing to the introduction of French cachets. The price used to vary slightly, somewhere about $1.75 per thousand; but at the annual exhibition of drugs at the British Medical Association, Messrs. Cooper & Co. offered them at 72 cents per thousand. These French cachets are the invention of M. Minot, who has also devised a special machine for stamping the name of the pharmacist or the name of the drug on each cachet. The principal improvement is that the name can appear in any color one may prefer. Messrs. Christy & Co., agents for the Morstadt cachet machine and cachets, have promptly reduced their prices to those of their new competitor.

Drugs at the British Medical Association.—There was a painful absence of startling novelties at the exhibition of drugs, foods, etc., held at the annual meeting of the British Medical Association. Some firms made up for this paucity of novelties by displaying a considerable portion of their laboratory appliances. Thus Messrs. Idris, the well-known aerated water manufacturers, had a fairly complete bacteriological display, and demonstrated their analytical processes for determining impurities in the carbonic acid gas used, etc. A popular milk company also had a small analytical laboratory in full swing, and demonstrations as to the detection of formalin, boric acid, and other preservatives, were made and the usual processes for estimating fat in milk, cream, etc., shown. I noticed one or two firms of instrument makers were trying to become popular by distributing perfume on to visitors' handkerchiefs by means of odorators. In this way they were attempting to compete with the chocolate stalls and extract of meat exhibits, where there are free tasters. If this sort of thing goes on, druggists will find that exhibitions of this class are games not worth the candle. As it is, the medical men frequently ask for samples to be mailed to them of most ordinary articles, such as Blaud's pills, medicinal capsules, etc., which leads one to suspect that they manage to set themselves up for a long time in drugs, etc., after an enterprising visit to an exhibition. Already some wholesale drug firms have objected to the enormous tariff for space demanded. Messrs. Richardson, of Leicester, and Corbyn, Stacey & Co., of London, have exhibited for the last ten or fifteen years, but declined on this occasion.

Cod Liver Oil.—The high value of cod-liver oil affects druggists throughout the world. Practically speaking, there is only one quality of Norwegian obtainable on the English market, and second quality is invariably Newfoundland. On comparing these oils, I have been struck with the sweetness and complete absence of fishiness in the Newfoundland oil. This bears out an American opinion that this oil is preferable for emulsions. Its gravity is about .927, and it stands the freezing test and answers the pharmacopœial characters.

Narcotine.—Sir William Roberts has lately drawn attention to narcotine as a neglected alkaloid of opium. He suggests the name anarcotine, as it has no narcotic properties, but possessed powerful antiperiodic value, and succeeded where quinine has failed in curing cases of malaria. So far, the medical profession has not responded to this appeal, and the anarcotine boon appears likely to fizzle out. Sir William Broadbent's opinion is worth quoting: "As regards the remedies in our possession, they are only too numerous. Recourse to a great variety of drugs is fatal to exact knowledge of their effects and to precision in their use."

This Transition Period.

Pharmacy at present is in an evolutionary stage, and, while we deplore the existence of many of the present conditions, we do not hold the pessimistic idea that pharmacy is in danger of being swept out of existence. Pharmacists are a necessity to the community, and if evolutionary laws hold good they are bound to come out on top in the end, though this is but Job's comfort to those who are struggling against the adverse conditions of the pharmacy of to-day. For the existence of these conditions pharmacists and physicians are both to blame, the latter especially, for the enormous growth of the greatest evil of modern pharmacy—the proprietary medicine. We do not, however, consider that this evil will grow much further, for with better educational advantages such a condition of affairs is bound to end sooner or later, and already we fancy we can see signs of the end.

To-day it depends largely on the pharmacist himself whether he will be merely a purveyor of drugs and galenicals, or demand and secure more or less professional recognition. Physicians we always find are only too willing to consult the druggist where such confidence is not misplaced.—*American Druggist.*

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All Communications to be addressed to Kidsgrove.

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(LIMITED)

Best English Refined

Borax
and
Boracic Acid

Lump, Crystal, Granulated, and Finest Powdered.

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Kidsgrove and Tunstall, Staffs.
BORACIC ACID WORKS:
Connah's Quay, Flint.

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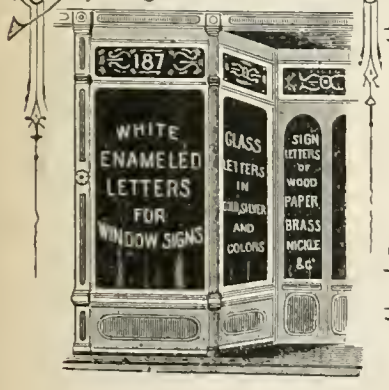
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260 Clark St., - Chicago, Ill.

Canadian Cattle Spice

THIS is a Condition Powder prepared on a large scale, and furnished to the trade at rates that afford a liberal margin of profit, and which, therefore, every dealer has the strongest inducement to

PUSH.

It is put up in quart cartons, retailed at 10c. each, and in bags of 100 lbs. in bulk; this latter form being convenient for those in the habit of putting up a Horse and Cattle Condiment with their own label.

A good supply of Counter Literature is furnished with each purchase.

ELLIOT & CO.

5 FRONT STREET EAST

TORONTO

J. STEVENS & SON,

78 LONG LANE, - LONDON, E.C., ENGLAND

Red Cross English Dressings,
Druggists' Specialties,
Glass and Earthenware,
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1895 List and Discounts now ready.

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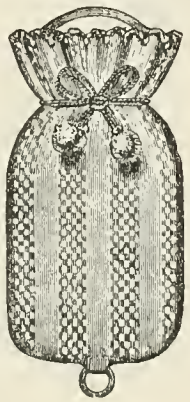
We have a New Line of

Hot Water Bottles



which we are offering to the trade at

Very Low Figures

We can give you a two-quart hot water bottle to retail at 75 cents each.

Prices and quantity discount on application.

ALPHA RUBBER CO., LTD.
MONTREAL, CANADA.

DRUG STORE FITTINGS

A SPECIALTY.

DRUGGISTS about to remodel their stores, or fit up new buildings, will find it to their advantage to write us for designs and estimates. We have something new and original for each customer.

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PRESTON, - ONTARIO.

DICK'S UNIVERSAL MEDICINES

FOR HORSES AND CATTLE

They always give entire satisfaction, and there are no medicines in the market that can compare with them.

Thrifty farmers, stockowners and carters all over the country are, by actual results, realizing that they cannot afford to be without a supply of

Dick's Blood Purifier Price 50c.
Dick's Blister, for Curbs, Spavins, Swellings, etc. Price 50c.
Dick's Liniment for Cuts, Sprains, Bruises, etc. Price 25c.
Dick's Ointment. Price 25c.

Circulars and advertising cards furnished.

DICK & CO., P.O. Box 482, MONTREAL

The Best Brushes

Hair, Tooth, Nail, Shaving, Bath, Cloth, Infants'

MANUFACTURED BY

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LUXTEN'S INSECT POWDER

London Drug Co.'s

Sticky Fly Paper
Lime Juice (½ Pts., Pts., and Qts.)
Moth Balls in 10-cent boxes.
Storey's Headache Powders 10-cent packages.
Gem Rings
Mixed Spices
Stafford's White Paste Cleaner and Stronger than Mucilage

THE
LONDON DRUG CO.,
LONDON, ONT.

THE
Lyman Bros. Co.
(Limited)
TORONTO, ONT.

Offer special prices on Spices, Bungs, Fruit Jar Rings, Heavy Sealing Wax, and other seasonable goods. The powdered Spices are our own powdering. We would suggest many druggists could work up a nice trade at this season by handling PURE FIRST GRADE Spices.

We offer the following Perfumes to clean out odd lots:

Warwick's Perfumes at $2.00 per bottle

2	lbs.	Ess. Bouquet
7	"	Franjipani
7	"	White Heliotrope
13	"	Millefleur
6	"	Marechale
8	"	Ixora
6	"	Opoponax
22	"	Ocean Spray
2	"	Pond Lily
1	"	Rondeletia
8	"	Spring Flowers
3	"	Sweet Briar
2	"	Sweet Pea
3	"	Wild Hyacinth
12	"	West End

15 lbs. Atkinson's J. Club, at $4 lb.
6 doz. " White Rose Toilet Powder, in barrels, at $2 dozen.

Odoroma
Eugene's Corn Salve
Guy's English Remedy
Uncle Sam's Tobacco Cure
Storey's Headache Powders
St. Francis Oil
One Minute Headache Powders

Large Assortment of Keasbey & Mattinson's

Effervescing Salts.

Trade Notes.

Hugh McLearn, druggist, of St. John, N.B., is dead.

The drug store of R. Wood, Erin, Ont., was destroyed by fire Sept. 9th.

H. Lannin, Port Elgin, Ont., has sold his drug business to H. W. Packert.

The death is announced of Alex. Barnett, druggist, Edgett's Landing, N.B.

McGregor & Merril, druggists, Brantford, Ont., have dissolved partnership.

The drug stock of F. A. Crockett, St. John, N.B., has been sold by the sheriff.

R. G. McPherson is removing his drug business from Vancouver to Kamloops, B.C.

The drug store of the insolvent estate of J. Evans, Elmwood, Ont., was sold Aug. 30th.

Dr. McAlpine, formerly in Vancouver, is opening a new drug store in Rossland, B.C.

M. Boire and M. Carre, of Manchester, N.H., have registered in Montreal as the Roy & Boire Drug Co.

W. G. Knight, dealer in patent medicines, etc., at Swift Current, dropped dead from heart disease, August 27th.

Wm. Lyman, 1130 Ontario street, Montreal, has been awarded a certificate of the "National Institute of Pharmacy."

The drug store of A. E. Duberger at Waterloo, Que., was entered by burglars Aug. 26th, and a quantity of goods taken.

J. O. Wood has moved his drug business from 101 York street to Queen street west, opposite College avenue, Toronto, Ont.

Messrs. Gregory, of Lindsay, and Jury, of Bowmanville, have purchased the drug business of L. J. Maxwell, of Oshawa, Ont.

The Walter H. Cottingham Company, with a capital of $100,000, for the manufacture of paints, has been incorporated in Montreal.

W. G. Pettingell, of Regina, N.W.T., has resigned the position of Registrar-Treasurer of the Pharmaceutical Association of the Northwest Territories.

Alex. McMillan, formerly with J. A. Nicolle, St. Catherine street, has opened a new drug store in the Arts Association Building, St. Phillip's Square, Montreal, Que.

James Lee, Ph.G., a former apprentice with J. J. Hall & Co., of Woodstock, Ont., and a graduate of the Ontario College of Pharmacy, is now the proprietor of a leading drug store in Seattle, Wash.

Walter Chapman, clerk in the drug store of his father, Samuel Chapman, of 483 King street east, Hamilton, Ont., was drowned in the bay, Sept. 3rd. It is supposed he went in bathing and was seized with cramps.

The "cutting" of prices in proprietaries has, we regret to see, broken out in Brantford, Ont., McGregor & Co., consisting of C. K. McGregor and William Wright, advertising as the "Big Cut-Rate White Drug Store."

John Hodge, of the Merchants Gargling Oil Co., of Lockport, N.Y., died in that city, Aug. 7th. Mr. Hodge was a Canadian, having been born in Camden township, county of Addington, Ont. He was a millionaire, and died without a will.

Mr. W. G. Smith, the well known druggist, for so many years on the corner of Wyndham and Macdonnell streets, Guelph, Ont., has removed his drug business to much larger and handsomer premises just four doors further west from the corner. During the past month extensive alterations have been going on at No. 20 Wyndham street, under Mr. Smith's personal supervision, until now they are nearly complete, and Mr. W. G. Smith is comfortably located in his new stand. He has added to his drug stock the book and stationery business which has been carried on in the premises by his father for the past five years, and has now one of the handsomest and most complete business stands in the city.

There are chemists, and chemists, and popular John Lewis is of the enterprising ones, as evinced by the fact that he is proprietor of no less than three first-class drug stores: the "Old Stand-by," 38 Victoria Square; the "Far Wester," 2613 St. Catherine street, corner Guy street; and "The Central," 2208 St. Catherine street (late W. A. Dyer & Co.), opposite the English Cathedral. The fact that Mr. Lewis can carry on successfully business so widely apart speaks volumes for his ability and care, the quality of materia medica dispensed, and his power of supervision. In that so many of our business men are gifted with the same enterprise, activity, and faith in Montreal, lies the secret of its growth and prosperity.—*Witness.*

Montreal Notes.

The Canadian contingent has returned from the annual convention of the American Pharmaceutical Association recently held at Denver. Every one speaks highly of the generous treatment received. The beauty and magnificence of the scenery has left an indelible impression. It is to be hoped that times in Montreal may improve by next year, so that the Montreal pharmacists may be in good shape to subscribe liberally towards the expenses of the annual convention of 1896. There is no doubt that a large addition to the membership of the American Pharmaceutical Association will result from the visit of that body to Montreal next year.

Mr. T. Brosseau, the legal adviser of the Council of the Pharmaceutical Association of this province, returned from England last week, where he had been to argue a case before the Privy Council. His services will be shortly required for a case which has been some time before the Council of the association.

Mr. W. H. Griffith, of Sherbrooke, has had a serious attack of illness, but he is expected shortly to be about again. He has the best wishes of all his confrères for an early recovery.

A Quebec dispatch brings the mournful intelligence that Mr. Paul Mathie, the well known and much-respected chemist of Quebec City, has lost his life by drowning in Long Lake, in the neighborhood of Pointe-a-Pie, Murray Bay. It appears it was Mr. Mathie's custom to open a branch at Murray Bay during the summer months, which he was closing up after a fair summer's business, and had already sent his children back to Quebec, intending to have a couple of days' fishing before returning to town, when by some unexplained cause his canoe was upset and himself and guide drowned. Mr. Mathie was a Frenchman, and a Protestant, a clever pharmacist and an honest man. He was much respected by all who knew him. He had the misfortune of losing his wife about six months ago. Mr. Mathie served some years on the Council of the Pharmaceutical Association, and was also for some time joint examiner on chemistry with Mr. Ambrosse.

Nova Scotia Notes.

Mr. D. L. Tremaine, formerly with Messrs. Stewart Burns & Son, of Sydney, C.B., is about opening a drug store at Truro.

Mr. E. S. Blackie, for some time with H. W. Cameron, of Brunswick street, Halifax, is shortly to engage in business on his own account on Spring Garden road, Halifax.

Mr. L. J. Mylius, of Hattie & Mylius, who was recently enjoying a vacation at Kingsport, has returned, looking much improved by the outing, and reports a very enjoyable time.

Mr. Frank C. Simson, of Simson Bros. & Co., we regret to state, has again been called upon to mourn the death of one of his children. One of the twin daughters of Mr. Simson died at Delamere, Grand Pré, Mr. Simson's country residence, on the 6th inst.

THE OPIUM YIELD.—Counting on the maximum yield of Turkey opium, and taking into account the existing stock, the total amount will be 10,000 cases, which is said to be amply sufficient for pharmaceutical and special consumption for one and one-half years, as this consumption has never exceeded an average of 5,500 cases in the year. Persian opium is plentiful in the consuming markets. If the forthcoming crop should be a good one, the quantity available for consumption during 1895 and 1896 will be not less than 14,000 cases.

Weight of Drops of Various Liquid Medicaments.

Friederich Eschbaum has recently made an exhaustive study of the question, propounded at the meeting of the German Pharmaceutical Association last year, "Is it possible to obtain from the same liquid, at all times, drops of identical size and weight?" The study is published in full in the *Deutsche Medizinische Wochenschrift*, from which we extract the following conclusions :

The size and weight of a drop is determined by two circumstances or conditions, viz. : (1) The adhesion existing between the liquid and the glass, and (2) the specific cohesion of the liquid.

In regard to the first condition, the author says : Drops of uniform size cannot be obtained by uniformity in the size or shape of the neck of the container, since the quantity of liquid in the latter has an influence on the quantity massing itself into the drop. They can be obtained, however, from a burette, and the sharper the point of the latter the smaller the size of the drops, and *vice versa ;* but it is the size of the external circumference of the point of exit which determines the size of the drop.*

To demonstrate this proposition, Eschbaum gives the following figures :

External diameter of point of pipette.	Weight of a drop.
0.67 mm	0.0134 gm.
1.39 mm	0.0262 gm.
2.89 mm	0.0492 gm.
3.07 mm	0.0522 gm.
4.17 mm	0.0690 gm.
6.56 mm	0.1000 gm.
8.32 mm	0.1260 gm.
14.90 mm	0.2250 gm.

SPECIFIC COHESION OF THE LIQUID.

The specific cohesion of various liquids varies within very wide bounds, being greatest in water and least in ether, glycerin and alcohol standing in that order between the two. To illustrate this, Eschbaum let the liquids drop from a burette of 6.56 mm. external diameter at 15° C., and found that 50 drops of each named liquid had the following weight :

Water	5.00 gm.
Glycerin	3.90 gm.
Absolute alcohol	1.54 gm.
Alcohol, 94°	1.70 gm.
Alcohol, dilute, G.P	1.87 gm.
Ether	1.22 gm.

The specific cohesion of a fluid is affected by temperature, but, according to our author, in small amounts the variation from this cause is too small to be taken into account practically.

The specific cohesion of a solution of a solid substance in a liquid *is lower than that of the liquid.*

The drops of a solution, all other circumstances being equal, are therefore smaller than those of the menstruum.

The specific cohesion of liquids is therefore in inverse ratio to their specific weight, so that *the absolute weight of a drop of a salt solution, for instance, is almost identical with that of a drop of the original menstruum.* All these results demonstrate the absurdity of our present methods, and led Eschbaum to formulate the following proposition for

RATIONAL DOSATION BY DROPS.

As a standard of unity, let a pipette be chosen having an external diameter of point of delivery of 6.56 mm. Such a pipette delivers drops of distilled water weighing 10 cgm. each, or 10 drops to the gram ; or 26 drops of a tincture made of dilute alcohol to the gram.

While the ordinary medicine dropper, with a gum bulb, seems to Eschbaum the most convenient for the patient, on account of its inaccuracy and the careless habits of the majority of nurses he advises a measuring apparatus for lay use, described as follows :

THE RATIONAL MEDICINE DROPPER.

Take an ordinary medicine glass, holding from 30 to 60 ccm., and fit it with a bored cork, through which pass a strong glass tube from 2½ to 3 cm. long, the inner end of which is even with the lower surface of the cork, and the outer end projects, say a centimetre, from the top of the latter. The delivery point *is not drawn to a point*, but is so molten as to leave a very small opening in it, while the lower end of the tube is molten only sufficient to remove the sharp edge, and even this may be omitted. The outer end should have a diameter of from 7 to 7½ mm. (from .28 to .30 inch) and be nearly flat, or only slightly rounded at the edges.

The dropper thus formed should be not more than half filled, and when it is desired to use it, it should be grasped in the palm of the hand and turned upside down over the spoon or other receiver. The heat of the hand, expanding the residual air, will slowly drive out several drops, each of exactly the same size. A well-made dropper of this sort may be turned upside down and left thus for several minutes without a drop escaping until the hand (or other external source of warmth) is applied.

While the use of the "drop" as a unit of measure in medicine and pharmacy is to be discouraged, and no one is more convinced of the fact than our author, he recognizes the impossibility of reforming the professions all at once, and the futility of such an attempt. He has therefore done the next best thing, and has, with most commendable patience and accuracy, worked out a table of the weight of drops of the various medicaments in common use, selections from which we present below.

The results presented in the following table were obtained by the use of a burette with an external diameter of 6.56 mm. (say .26, or a full quarter of an inch). It is unnecessary to remark that a burette should be firmly held in measuring, as a trembling hand causes the drop to be shaken off the point before it has completely formed.

TABLE OF DROPS TO THE GRAM OF LIQUID.

Acetum	13
Acid, carbolic liq	18
Acid, hydrochloric	11
Acid, hydrochloric dil	10
Acid, phosphoric	10
Acid, sulphuric aromatic	25
Acid, sulphuric dilute	10
Amylene, hydrate	31
Amyl, nitrate	33
Bromine	17
Creosote	19
Chloroform	26
Ether	41
Ether, acetic	30
Ether, bromic	29
Extracts, narcotic, dissolved, according to the solvent, which see	17-20
Formaldehyde, solution	16
Glycerin	13
Liquor, ammoniæ aromatic	27
Liquor, ammoniæ caustic	11
Liquor, ferri subacetat	12
Liquor, ferri sesquichlor	9
Liquor, potass, arsenit	15
Oil of almonds	20
Oil of anise	20
Oil of caraway	21
Oil of clove	20
Oil of cinnamon	21
Oil, croton	21
Oil of temon	26
Oil of peppermint	24
Oil, olive	21
Oil, mustard	22
Oil of turpentine, rect	27
Oil, paraffin	23
Paraldehyde	27
Syrup of iodide of iron	10
Spirit (alcohol)	29
Spirit of ether	31
Spirit of nitrous ether	29
Spirits camphor	26
Spirit, dilut (alcohol dilute)	27
Tinctures prepared with alcohol	29
Tinctures prepared with dilute alcohol	27
Tincture, ethereal acetate of iron	26
Tincture, ethereal chloride of iron	30
Tincture of matate of iron	14
Tincture of iodine	29
Tincture of musk	21
Tincture of opium (G.P.)	26
Tincture of rhubarb, aqueous	14
Tincture of rhubarb, vinosus	17
Tincture of strophanthus	26
Tincture nux vomica	26
Tincture of valerian	26
Tincture of valerian, etheric	30
Water of bitter almond	19
Water, chlorine	10
Water, distilled	10
Wine of camphor colchicum, ipecac, etc	17

TO THE DOCTORS.

In conclusion, Eschbaum gives the following very good advice to the physicians : Either regulate your doses after the information conveyed to you in this table, or, what is better, name the absolute weight or measure of the dose prescribed.—*National Druggist.*

*Quicksilver is the only fluid that forms an exception to this rule. The size of the drops of this substance is determined by the diameter of the opening in the clear.

Copper hemal (hæmalum cupratum), a compound of hæmoglobin with copper (2 per cent.), has been recommended by Prof. Kobert, in doses of not to exceed 0.5 gram three times daily.

Anesthyle describes a local anæsthetic mixture, composed of five parts of ethyl chloride and one part of methyl chloride.

Sodium nitrite, combined with an acid vegetable extract in pills, has been observed to decompose, causing the pills to swell.

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Editor CANADIAN DRUGGIST :

SIR,—Your article, "A Retrograde Movement," should, I think, find a responsive chord in the sensibilities of every Canadian druggist who thinks enough of his occupation to seek to put it on a higher plane. If there is one weakness in our standing more conspicuous than another, it is in the very particular which induced your comment The druggists of our province, your humble servant amongst the rest, hold a somewhat exalted opinion of their qualifications, yet totally fail to create the least impression in the pharmaceutical world outside of their territorial divisions. It is time that we were all aroused out of our lethargy, and shown that the highest aim for a druggist's ambition is something beyond a seat in the council chamber, with the privilege of voting ourselves senatorial rates of mileage and *per diem* allowances.

Hoping that our new initiates on the council will think twice before they act once in future, I remain,

Very truly yours,
WESTERN DRUGGIST.

Editor CANADIAN DRUGGIST :

SIR,—Referring to the letters of "An Apprentice" in your paper, I endorse all he says, and more too. What has higher education done for the drug business? What has our college ever done for the druggist? The fanatical men that have been running our college for the past few years have not improved things much. They have sought legislation to protect—what? Some of the most practical and successful druggists are the least educated. I work from 7 a.m. to 11 p.m. each day for the small pittance of $7 per week, not enough to keep body and soul together. What protection has a retail druggist? I think, Mr. Editor, if these head rulers of our affairs had done more to elevate and protect our profession, and cared less to advance their own selfish aims—as it appears to me that they have used the college for this purpose—no doubt druggists would have ere this seen some needed reforms in our college legislation.

JOHN SUMMERS.
Guelph, Aug. 19th, 1895.

Counter Prescribing.

Editor CANADIAN DRUGGIST :

SIR,—Since the medical detective has been very busy of late among us, would it not be well to have a look into this Medical Act?

As near as I can ascertain, a druggist is not allowed to recommend anything unless the medicine so recommended be some proprietary medicine. Now, the point comes up as to what constitutes a proprietary medicine.

Certainly this act greatly handicaps a druggist, who, according to it, cannot recommend a dose of castor oil, Epsom salts, or any such simple remedy.

To a customer of limited means such a law is arbitrary in the extreme. According to it, a person must go before a medical man and pay his fee for every little ill to which his flesh is heir, or else go at it by reading patent medicine advertisements *ad libitum*, until he or the druggist arrives at what is wanted.

Now, Mr. Editor, is such a law just? Why is it that a man cannot go to a druggist for a very nominal price (not fee) and purchase what the druggist can conscientiously recommend to him?

I am sure, sir, that the public in general are in favor of a reform along this line; and I believe if druggists were to unitedly and honestly state their case before the Local Legislature, their wishes would be complied with. Surely we are asking for nothing more than what we are duly entitled to, and we have the public on our side.

For my own part, perhaps all the druggists are aware of my having been fined; but I would also state that I am not particular how much the public are aware of it, as I consider I have committed no moral wrong.

Allow me to propose that all the members of our business take this matter up and use their influence with the representative from their constituency to bring about a reform in this matter. I am willing to help any man or body of men to do all possible. I can see no reason why we cannot have a law similar to that which obtains in Great Britain.

ANDREW P. STIRRETT.
Toronto, Aug. 30th, 1895.

Selling to Department Stores.

Editor CANADIAN DRUGGIST :

SIR,—Pursuant to your esteemed request that we express ourselves in the columns of your journal upon the subject of supplying department stores with pharmaceuticals to be sold in competition with the regular drug trade, we beg to say :

Without assuming to speak for manufacturers in general, it is our individual opinion that the supply of pharmaceuticals to such stores is not only entirely inconsistent with the best interests of pharmacy and medicine, but also the highest good of the general public. For this reason we never knowingly entertain orders coming from such sources, or from any source when we have good reason to believe that the items ordered are intended for such stores. Pharmacy and medicine have to do with the most important interests of human existence—health, and even life; and therefore both should occupy a plane much higher than mere barter and trade can ever attain. The physician is actuated by a nobler motive than merely obtaining a living and competence, and because he is inspired with a love of his calling and humanity he is, by common consent, regarded as a professional man rather than as a tradesman. The same considerations dignify the functions of the pharmacist. But it is absolutely impossible for a department store to be inspired by any such high motive. On the contrary, the distinctive feature of the department business, from beginning to end, is barter. It is doubtful if the existence of a department store can be justified with reference to any branch of it, for every trade requires a certain degree of *esprit de corps*, which it is impossible for the proprietor of an establishment dealing in everything to feel. The department store is indeed becoming a very serious problem in large cities with reference to every trade and industry.

The remedy undoubtedly lies in the proper education of the public, for when consumers come to realize that department stores cannot procure fresh stock from jobbers or manufacturers, but must depend upon brokers gathering up old stocks, whether at sacrifice sales or otherwise, and wherever they can find them, they will certainly not be inclined to pass by the regular pharmacist for the sake of the slightly reduced price obtainable at their counters. We remain,

Yours very truly,
Parke, Davis & Co.
Detroit, Mich., Aug. 24th, 1895.

The Educational Question.

Editor CANADIAN DRUGGIST :

SIR,—My chief purpose in again replying to "An Apprentice" is to correct some errors which he made in taking extracts from my last letter; and as he boasts of such perfection from the model education which he has received as to be beyond making mistakes, I cannot attribute such misquotations to carelessness, but to a desire to falsify my statements.

He quotes me as saying, "It would not be right to have the profession open to all," and then he adds, "Thus he shows his selfishness and fear of competition" What I said was that "the drug profession ought not to be brought so low that any one, whatever his educational qualifications might be, could enter its ranks." There is a vast difference in the meaning of the two quotations. The latter prohibits no one from entering the drug profession, but simply protects the public from impostors by providing that those who do enter the profession must qualify for it. As to my selfishness and fear of competition, any man of average intelligence, and possessing an ordinary amount of that commodity known as common sense, can easily see there is nothing to fear from the competition of such men as my friend would have to be pharmacists. The only reason, as far as I can see, why even he would allow such men to enter the profession is because it would then be easier for men such as himself to become shining lights. But I would ask him whether it is more honor to be a shining light among a lot of ignorant men, or to

belong to a profession which, in regard to education, was second to none in the land?

What I said respecting the lowering of matriculation was not "that it would entice more into the business," but "that an inferior class of men would go into it, while those of greater ambition and ability would be found entering fields that would afford their talents a wider scope." He accuses me of selfishness for advocating a higher standard of education, and yet he says, "Keep them out by lengthening the term of apprenticeship." Now, I ask you, which is the more reasonable? and which more in keeping with this progressive age?

As regards the young man who has been nine months at the business and is not able to wash a bottle yet, that is not to be wondered at if the teaching of "An Apprentice" is anything like his ideas respecting higher education. For a youth who has the impudence to characterize the teaching of such men as the late Sir Daniel Wilson, and others associated with him, as "useless trash," or "mental cramming," is not likely to be a brilliant success as a teacher or anything else. If he only knew a little more of what they taught, he would not show his ignorance by speaking so lightly of their teaching. If he was a little more conversant with that "old-fashioned dead language" called Latin—and from which, by the way, a great part of the English language is derived—he would not find such difficulty in "mentally assimilating" what was taught at the Ontario College of Pharmacy or elsewhere.

I hope, Mr. Editor, we shall not weary you with this dispute; but that it will be the means of calling the attention of the drug profession at large to the now ridiculously low standard of matriculation. And if it does, I feel sure a higher standard will be the result. I have spoken with several druggists of late concerning this matter, and have yet to find one, beyond my friend, "An Apprentice," who is not in favor of making matriculation in pharmacy and medicine one and the same. Thanking you for valuable space, I am,

Yours respectfully,
A.M.

Animal Oils and the New Pharmacopœia.

THE PROPERTIES OF "OLEUM ANSERIS," OR GOOSE-GREASE.

Being struck, for some years, with the scarcity of the animal oils and oleaginous substances in our Pharmacopœia, in comparison with those derived from vegetables, I would venture to briefly bring before the profession the properties of an oleaginous substance of peculiar penetrating power, and one for many years well known in most households.

At present we possess but three animal oleaginous substances in the British Pharmacopœia, viz.: (1) Oleum morrhuæ. (2) Lard. (3) Hydrous wool-fat ("Lanolin").

This strange coincidence is almost surprising in itself, considering the number of oils known in medicine and commerce. The third material has, of late years, been in use, viz., "Lanolin," and there is reason to believe this possesses properties which would entitle it to a place in our formularies.

The one of which I write, however, is more easily obtained than most oils, and is already well known to the public. It is plain "goose-grease." That this substance possesses valuable medicinal properties is, to my mind, clear beyond question. It is of the easiest purchase—cheap, one would imagine, as a marketable article, and of its activity, when used in medicine, I have had, for a considerable time, no doubt.

In affections of the chest it is a most excellent substance to apply, even alone. In bronchitis of the sub-chronic type, or what would best be termed a "cold in the chest," or moderate bronchial catarrh, few liniments or applications will be found to equal this "oleum anseris," or goose-grease. Stimulative liniments are frequently prescribed for this condition, and they are most efficacious in their action. I have, however, frequently witnessed the "rubbing-in" process of these substances, and, while some penetrate the skin with great difficulty, a few do not at all. Now, if a drachm or so of this grease be placed in the hand of the rubber and the liniment poured thereon, it will be carried into the tissues in a remarkable way.

During the late influenza epidemic—an epidemic fraught with some of the most interesting lessons in the study of medicine—I frequently observed patients who were using this remedy for the cough which was associated with the later stages of the disease, and marked the benefit they obtained therefrom. Where some bronchial mischief remains unresolved in the lung, and that peculiar, tenacious, viscid secretion lies attached to its internal mucous or serous vesicular wall, a stimulating liniment will be immensely helped by the addition of this oil. It becomes much easier to rub in, and appears to become absorbed rapidly.

One case in point was very striking. A gentleman sickened with influenza of what, in endeavoring to describe it, I have termed the "chronic" type. Never ill enough to stay in bed, and scarcely well enough to be out of it, he was troubled with dry "hacking" cough for many days. Scarcely any secretion was expelled from his lungs, in which there lay lodged, with a desperate tenacity, a small quantity of viscid exudation. With the aid of suitable internal remedies he gained ground very slowly. The liniment of camphor and ammonia (Lin. camph. co.) was prescribed for him, and helped him but slightly. Goose-grease was added, and its effect became at once apparent. In a day or so, being much better, this oil was omitted, and he became bad again. It was repeated at each application, and great benefit followed. A second and a third time he omitted the goose-grease, and the cough and the distress returned. It was rapidly removed, however, by an unceasing application of it. This gentleman, being convinced of its efficacy, mainly attributes this recovery to its specific action on his chest. Another instance, at this time, was that of a gentleman who had a cough for two months, and had suitable prescriptions prepared for it. They relieved him but little. At the end of the two months he was recommended an application of this oil, and I am a personal witness of the complete removal of his cough by no other remedy than it, after three or four days.

Of its penetration there is no doubt. I have seen it remove, in a distinct way, muscular rheumatism, when rubbed in. Thickening in the neighborhood of joints after sprains, or subacute rheumatic inflammation, will be greatly aided towards resolution by its use.

Another manner in which I have witnessed marked benefit result from its use is in the case of wasting, or marasmus. When rubbed into the abdomen and groins of young children it is a decided nutrient, and experience has convinced me of its efficacy. It can be eaten on bread with salt, and in this way, if freshly prepared, is very palatable and nutritious.

If a further illustration of its powers were wanted, its use by sportsmen supplies it aptly. I have been told by experts on firearms that it is not a good thing to too liberally apply to guns, "as it is far too penetrating," "it eats or worms its way" into every conceivable crevice.

As a basis for liniments, or the softer kinds of ointment, when the effect is desired upon the underlying tissues, I can conceive no better substance to "carry in" a drug into the deeper parts. It far exceeds lard in efficacy, and, than vegetable oils, I hold that it possesses far greater permeating qualities. It is liable, I believe, to become rancid, but I have kept it for many weeks by the simple addition of some boric acid. Active drugs incorporated with it will, when applied externally, be under the best conditions for permeation through the skin, and it will not lie on the surface unabsorbed so much as other oils.

At this juncture, it strikes me, others might give their experience of this substance if they have used it. Its popularity appears to be chiefly confined to Ireland, and mainly, I should imagine, to country districts; but that in this substance we have an excellent vehicle for the inunction of drugs in various diseases I am so convinced that, in place of a needless intrusion, my bringing it forward to the notice of the profession has become almost my imperative duty.—*(Dublin Journal of Medical Science) Pharmaceutical Journal.*

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Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

☞ 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at **$1.00**. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.

TRADE C_6H_5 MARK

Little's Soluble Phenyle
DEODORISER & ANTISEPTIC
NEW DISINFECTANT.
FOR UNIVERSAL USE

CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

Sold by all Druggists in 25c. and 50c. Bottles, and $1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton, and London, Ont., and Winnipeg, Man.

ONTARIO VACCINE FARM

Pure and Reliable Vaccine Matter always on band. Orders by mail or otherwise promptly filled.

10 Ivory Points, $1; 5 Ivory Points, 65 cents; single Points, 20 cents. Discount to the trade.

Address all orders—VACCINE FARM,

A. STEWART, M.D. Palmerston, Ont.

JOSEPH E. SEAGRAM

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Pure Spirits

Rye and Malt Whiskies

"OLD TIMES" AND "WHITE WHEAT"

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Le Vido

Water of Beauty.

A true specific for all Skin Diseases

BECAUSE

It gives satisfaction to your customers.

It is a reliable, safe, and sure preparation.

It has been on the market for 25 years.

It is handsomely put up and extensively advertised.

It gives you a fair profit.

Order now through your jobber.

OUR SPECIALTIES

Boulanger's Cream Emulsion.

Dozen	Sold at
$4.00	50c.

"Le Vido" Water of Beauty.

Dozen	Sold at
$7.00	$1.00

Dr. Scott's Pile Cure.

Dozen	Sold at
$1.50	25c.

Injection Wattan.

Dozen	Sold at
$5.00	75c.

Dermatonic Complexion Powder.

Dozen	Sold at
$1.75	25c.

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Wholesale Patent Medicines

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TURKISH DYES.

DR. WILSON'S HERBINE BITTERS.

Sole Proprietors of the following:

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Gray's Anodyne Liniment
Dr. Wilson's Antibilious Pills
Dr. Wilson's Persian Salve
Dr. Wilson's Itch Ointment
Dr. Wilson's Sarsaparillian Elixir
French Magnetic Oil
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Dr. Wilson's Pulmonary Cherry Balsam
Dr. Wilson's Cramp and Pain Reliever
Dr. Wilson's Dead Shot Worm Sticks
Nurse Wilson's Soothing Syrup
Clark Derby's Condition Powders
Wright's Vermifuge
Robert's Eye Water
Hurd's Hair Vitalizer
Dr. Howard's Quinine Wine
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Strong's Summer Cure
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PRI-MO LADIES' SYRINGE.
WE ISSUE A PAMPHLET THAT WILL INTEREST YOU.
IT IS USED WITHOUT BED PAN. PERFECTLY ASEPTIC. ANATOMICALLY CORRECT NOT A WEDGE.
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INTRODUCERS NOVELTIES OF MERIT.

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No. 2. " " Complete 2-qt. Fountain, 48

DISCOUNT TO TRADE ON APPLICATION.

BEST SYRINGE ON THE MARKET. SOLD BY ALL JOBBERS.

LYMAN, KNOX & CO.

Montreal and Toronto

Agents for Canada.

American Pharmaceutical Association.

The forty-third annual meeting of this association was held at Denver, Colorado, August 14th to 21st. Over five hundred members and their wives registered as being in attendance. Twenty-two papers were presented on subjects bearing on pharmacy, and considerable discussion took place on a number of the papers. The delegates from the Pharmaceutical Association of Quebec, Messrs. E. Muir and J. E. Morrison, on behalf of the corporation of Montreal, the Board of Trade of that city, and the Pharmaceutical Association, invited the association to hold its next annual meeting in Montreal. This was decided on, and the date named for August 12th, 1896. There was no representation from the Ontario College of Pharmacy, a fact which caused some comment. The officers for the coming year are: President, J. M. Good, Missouri; first vice-president, C. E. Dohme, Maryland; second vice-president, A. Brandenberger, Missouri; third vice-president, Mrs. M. O. Minor, Kansas; treasurer, S. A. D. Sheppard, Massachusetts; permanent secretary, C. Caspari, jr., Maryland; local secretary, J. E. Morrison, Montreal, Canada.

Quebec Pharmaceutical Association.

ANNUAL REPORT.

The twenty-fifth annual report of the Council of the Pharmaceutical Association of the Province of Quebec, for the year ending April 30th, 1895, with proceedings of the annual meeting held on June 11th, 1895, is now out in printed form. In its report the council hopes that in the near future steps will be taken to formally organize a new association under the name of the Canadian Pharmaceutical Association, which, when formed, will not interfere with the present rights and privileges of the several provincial associations. The registrar reports on the register, in good standing, the names of 203 licentiates of pharmacy, 61 certified clerks, 165 apprentices, and 25 physicians licensed under the permission of Article 4035*c* of the Quebec Pharmacy Act of 1890. The treasurer shows a balance on hand of $2,884.77. The address of the president, Mr. R. W. Williams, of Three Rivers, is embodied in the report. In it he denounced patent medicines, and said that this country should have, as in most European countries, a commission composed of physicians and pharmacists, and that all demands for patents or copyrights for medicinal preparations should be submitted to this committee with the formula, and, after examination, a report should be made to the government recommending or rejecting the demand.

The officers and council for 1895-6 are as follows: President, R. W. Williams, Three Rivers; first vice-president, W. H. Chapman, Montreal; second vice-president, L. Lachance, Montreal; treasurer, A. Manson, Montreal; secretary-registrar, E. Muir, Montreal; council, the officers and Messrs. H. R. Gray, D. Watson, Jos. Contant, A. D. Mann, C. J. Covernton, W. A. Dyer, C. E. Scarff, of Montreal, and J. E. Roy, of Quebec.

PRELIMINARY EXAMINATIONS.

The next preliminary examinations for candidates entering the study of pharmacy will be held in the Montreal College of Pharmacy, 595 Lagauchetiere street, Montreal, and Laval University, Quebec, on Thursday, Oct. 3rd, 1895.

Candidates must give notice to the registrar, in writing, of their intention to present themselves at *least ten days* before the date fixed for the examination.

A printed form of application must be obtained from the registrar, which must be duly signed by the applicant.

No application will be accepted after the 24th day of September, 1895.

These preliminary examinations are held on the first Thursday in the months of January, April, July, and October of each year.

NOTICE TO STUDENTS.

The semi-annual examinations for major and minor candidates will commence on Tuesday, October 15th, 1895, at 9 a.m., and will be held in Laval University, Quebec. Candidates must file their applications, duly certified, with the registrar, on or before the 5th of October. Printed regulations and form of application must be obtained from the registrar, and be duly signed by the applicant.

Candidates who have failed m than once in their examinations will be uired to pay the full examination fee.

No applications for these examinations will be received after the 5th of October, and candidates remitting their examination fees must do so in funds payable at par in Montreal.

E. MUIR, Registrar,
595 Lagauchetiere street
Montreal, September 5th, 1895.

Montreal College of Pharmacy.

The Montreal College of Pharmacy will open its twenty-eighth session of lectures in the college hall, 595 Lagauchetiere street, on Tuesday, October 1. Sessional examinations will be held by the professors every three months, and prizes will be given to students obtaining the highest marks in each class. The lectures on materia medica, pharmacy, and toxicology will be conducted by Dr. T. D. Reed and Mr. H. R. Lanctot. Mr. Joseph Bemrose, F.C.S., and Professor C. A. Pfister will lecture on theoretical and practical chemistry, and in botany Mr. Joseph Bemrose, F.C.S., will conduct the English class, and Mr. Joseph E. Morrison the French class.

PROPYLAMINE IN CHOREA.—Propylamine is now being employed in the treatment of chorea or St. Vitus' dance. It is given combined with peppermint water.

The Trend of Pharmacy.*

The pharmacy of to-day is so different from the pharmacy of a few years ago that we of twenty, twenty-five, or thirty years ago in pharmacy find ourselves largely in a new field to-day. Much that we considered essential in pharmacy is scarcely useful now, and substances unthought of then are conspicuous remedies to-day.

As I think over the past I am reminded of the old Kentucky gentlemen (I know a few of them yet), that have gone through life in their peculiar, courteous style and manner, a style that, in my experience, only those from the southern side of the Ohio river have ever learned. In the face of changes that have brushed them to one side these men have graciously taken the places that they recognize they must now take, and they do it cheerfully. Now, some of us pharmacists will have to do the same thing, unless we keep up with the trend of progress, and we had better do it cheerfully. The prescriptions that we used to get, the work that we used to do in pharmacy, is much of it no longer the work of pharmacists. Look at it as we may, strive against it as we will, the inevitable is coming—it has come, and no man living can foretell the end of this change. It is the change that civilization brings, a change that, taken altogether, even if painful to a few of us, is moving humanity towards the betterment of mankind. Pharmacists of the past were pioneers—pioneers even twenty, twenty-five, and thirty years ago.

There has been a revolution, silent, insidious, irrepressible, and the end is not yet. The changes which are to come in the next thirty years can no more be anticipated than changes that have come to the present time. Conspicuous on the shelves of your stores, from force of habit, you carry the relics of other days; your rows of tincture bottles occupy valuable space, but, as a rule, you have very little use for them. Your compound tinctures and syrups are largely reminiscences. They have passed from the sight of physicians, but habit with you makes them conspicuous and cumberers; they still occupy the most valuable space in your store. I see before me my old teacher, Mr. George Eger. I remember how careful he used to be in making the preparations to which I refer, which we made according to the old method, maceration. But the manufacturer has come, and in a sense has brushed such work aside.

Concerning the medicines we made then, many will remember when the compound syrups of stillingia and sarsaparilla were prepared by the barrel or in lots of five and ten gallons at a time for prescription use. A gallon bottle in the cellar is now sufficient to replace the keg or barrel of former times. The trend has been to the displacement of such preparations as these by others that were unknown thirty years ago. Sugar and gelatin-coated pills, tablets, triturates, elegant

* Address delivered before the Ohio Pharmaceutical Association by J. U. Lloyd, Cincinnati.

pharmaceutical preparations, have been evolved by manufacturers, and the plaster-iron and pill-machine are laid aside by pharmacists. Like the old Kentucky gentleman, however, we can think of other times, but let it be as graciously as he does, for, really, our conditions are not very dissimilar.

And now a word concerning pharmaceutical education. If what I have said is true, and pharmacy work as we formerly knew it is being displaced, have we use for pharmaceutical colleges? To what end are the great university classes in pharmacy trending? In my opinion, not to manufacture medicines, but ably to select them; not to put together, but to watch that which they purchase and which they guarantee to their patrons; not to compound so much as to test and establish what is compounded. To this end their education points, and it must be higher than was ours. It is easier to make preparations by the pharmacopœia of 1860 than to test them by the pharmacopœia of 1890. The graduate in pharmacy in 1860 had no manufacturing problem as exacting as is that of establishing the value of pharmaceutical preparations by the volumetric processes of 1890. Pharmaceutical education was never more necessary than now, and the trend of the science side of pharmaceutical education has been and is upward, towards greater skill and higher qualifications, and our country is being filled with young pharmacists with better general educations and more scientific endowments, but less practical experience, as a rule. Grant that none can excel many of the members of the older classes, and also that many inferior students are now evolved, and yet I admit freely that the methods of college instruction are superior to those of former times, and that in a general sense the courses are more exacting.

The demand is not only for men capable of making medicinal preparations, but of protecting their patrons in certifying to the quality of what others make, and in this sense the time is coming when pharmacists will be very much more responsible than now. Pure food and medicine laws will compel them to assume a responsibility that scientific men only can assume, and the pharmacist of the future must, I believe, take a more responsible position than have we of the past, even though he purchases instead of makes his own preparations. Thus it is that in my opinion, whether we make our remedies or buy them, the trend will be to the extinction of men not qualified in the scientific side of the pharmacy that is approaching. Just now we are in the confusion of this change from the old to the new; it is painful to many of us; some of us are inclined to become sour, but the end, I hope, will be to the betterment of our people. We must accept the situation. We cannot avoid it. I only hope that some of my friends who are growing old and sour and crabbed will learn, as I have found it necessary to do, to renew their youth. They can do it if they will do as I have done within the last ten years—look forward and not backward; think of something pleasant, and not worry over that which is inevitable and cannot be helped.

And now a word for the future. We do not know that in the future there will be any nasty medicines, say in thirty years from now. I hope there will be no necessity for them, for I hope that scientific pharmacy will replace nastiness with remedies grateful to the taste. Such a hope is not so Utopian as we may think. Fifteen years ago a dose of most remedies pharmaceutical was a tablespoonful or a teaspoonful, often of a medicine vile and disgusting. The prescription now for the same purpose is usually a pleasant little tablet, a small pill, or the fraction of a drop of a pleasant liquid. Now, for what are *substances* used as medicines? It seems to me that it is to carry a shiver of energy that acts upon something in the body to produce a change that the physician considers beneficial. It is not the *material* in the medicine that does this, and it is not the *material* in the body that it primarily acts upon. It certainly is not the *nastiness* that acts physiologically, unless it be to shock and disgust the patient. The sunshine, energy, the kinetic force in medicine is utilized, not the matter of it. Why should not this energy be linked to forms of matter pleasant instead of forms of matter obnoxious? To carry this thought a little further, it is the energy of sunshine that gives life. It is the energy of the sun that enables us to exist. It is the force of the sun that we conserve when we eat food. It is also a phase of energy from this same sunshine that makes a drug a medicine, not the matter therein. Now, our homœopathic friends tell us that they employ much less of this sunshine energy than others do to produce an effect therapeutical; and it really looks as though the other schools of medicine are, more or less, in this sense following in the steps of the homœopaths. They all seek more pleasant medicine and smaller doses.

These are pleasant thoughts, or should be, to true pharmacists who work for the good of humanity. Let us not refuse the happiness that comes with pleasant thoughts. Let us begin to take our sunshine thoughts now, and hope that more sunshine may be in the paths of pharmacists and in our medicine of the future. Let us think brighter and lighter thoughts of life. Let us not view as reprehensible that which is necessary to the progress of mankind. Our old medicines were bitter and nasty; *we* need not become as they were then. If manufacturers make pleasant medicaments quite different from our old compounds to carry concentrated energy expressions, should we object? Humanity profits in the use of pleasant forms of medicines, and these improved remedies are simply neater carriers of sunshine expression.

I am speaking to a few old friends, and to many whom I may call new friends, and to you I say, the trend of my remarks is, the changes that will yet come may not be to your liking unless you learn that the world moves; indeed, the changes that are to come in pharmacy will be largely what you do not want. We cannot control the business of pharmacy; we cannot control our own business. We cannot turn the world backward. I would not go back if I could to the medicines of thirty years ago. I would not change from the present to the past. I would not want my children to take the nastiness I used to prepare and considered excellent medicine. While possibly our young men will regret, perhaps oppose, the changes that must come during the next twenty-five years, I believe that at the end of that time they will not be willing to go back to the position we are in now.

Let us, then, look at the sunny side of life; let us give and take our sunshine gladly, and make our presence and our medicines welcome. Let us be cheerful and contented, and serve well our part in the evolution that thrusts back the old to introduce the new; and, finally, like the genial old Kentucky gentleman who delights in reminiscences of the past and gets all he can of life's pleasures, let us enjoy the generous present, and make our lives a pleasure and a blessing to those about us.

Tripoli Sponge Fishery.

According to a British consular report, the sponge fishery on the Tripolitan coast is practically monopolized by Greeks from the islands of the archipelago, who, during the summer months, frequent Karcura and other places in the Gulf of Sidra, the ancient Syrtis Major, the navigation of which, though no longer dreaded by sailors, as it used to be in classic times, is still dangerous when strong northerly gales blow. Harpoon boats, which can be used in comparatively shallow water, are the most numerous, and next come the machine boats, or those which have diving apparatus. These usually secure the best sponges, as the divers have time to examine and cut them, while the trawlers and ordinary divers cut them away indiscriminately. From a variety of causes, the chief of which is the danger of fatal exhaustion attending the divers, who, having to dive to greater depths to get the sponges, are obliged to remain under the water too long, the number of divers is gradually diminishing. The sponges are usually taken to Piræus and Syria, whence they used to be sent to Germany to be prepared for the European market, but some are now sent to Paris.

Cinnamon Adulterated with Walnut Shells.—It is stated that in England walnut shells have been found as an adulterant of ground cinnamon, the deception being not easily discovered even by experienced microscopists.

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AT REASONABLE PRICES?

You Can Save the Manufacturers' Profit!

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Cough Drops,
Folding Cartons—2 ounce and ounce.

Or if there are any other lines you wish to put up, write us about them.

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SIMPLE, BUT SURE!

Somerville's M. F. Cough Chewing Gum

FIVE CENTS PER BAR
TWENTY BARS ON A HANDSOME STANDING CARD

THE WHOLESALE TRADE HAVE IT

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Dressing Paper Dolls

No dolls to retail at 5 and 10 cents have ever been put on the market which can equal these.

Each set consists of One Doll with Three Dresses and Three Hats interchangeable, so that each doll can make nine changes of costume.
Each doll (together with the hats and dresses) is lithographed in

TWELVE DIFFERENT COLORS

The colors used are gay and bright, and the costumes are right up to the times in the style and fashion. Each set is put up in cream-colored envelopes, printed in colors,

All cut out complete, ready for immediate use.

This is the first series of 5-cent retail Dressing Dolls to be offered for sale.

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Six Kinds: Three Girls, Three Boys

Each doll is from 5 to 5¼ inches in height, mounted on good quality of cardboard, in envelopes about 3½ x by 6 in. Envelopes cream-colored, printed in colors. Each doll has an easel back to allow it to stand upright. The Girls are

Blondes and Brunettes

and are attired in Morning, Outing, and Walking Suits.

The BOYS are light-haired and dark, and (two of the three sets) have a very neat Sailor Suit, together with Outing and Walking Suits.

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To retail at 5c. per set

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1 DOLL
3 HATS
3 DRESSES or COATS

ALL CUT OUT COMPLETE READY FOR USE

The complete set of 6 Dolls can be retailed for 25c.

ALSO

American Beauties

Two kinds, both girls. 1 Blonde, 1 Brunette.
Regular 25-cent size.
Can be retailed for 10 cents a set.
1 Doll 3 Hats 3 Dresses

FOR $1

Will be sent, express paid, as sample, one dozen sets American Beauties and one dozen sets Tiny Ladies, assorted.

HARRIS H. FUDGER

HOLIDAY GOODS, DRUGGISTS' SUNDRIES, NOVELTIES, AND NOTIONS

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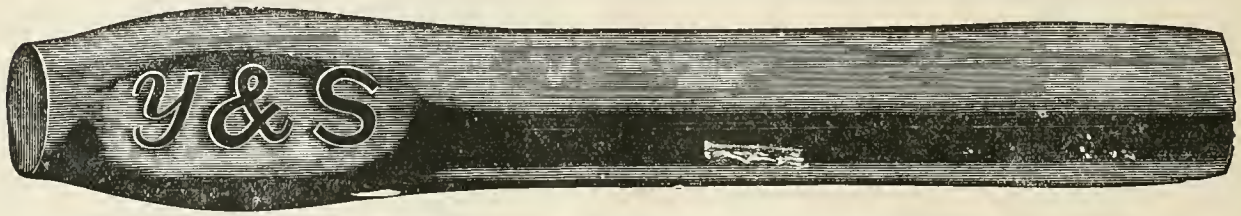

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5 lb. Boxes

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Pure Penny Stick Licorice, 200 Sticks in a Box

SICILY LICORICE, BRAND O, "OTTO"
5 lb. Boxes

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RADLAUER'S

ANTISEPTIC PERLES

Of Pleasant Taste and Fragrance.

Non-Poisonous and strongly Antiseptic.

These Perles closely resemble the sublimates and carbolic acid in their antiseptic action. A preventive of diphtheric infection.

For the rational cleansing and disinfection of the mouth, teeth, pharynx, and especially of the tonsils, and for immediately removing disagreeable odors emanating from the mouth and nose.

A perfect substitute for mouth and teeth washes and gargles. Radlauer's Antiseptic Perles take special effect where swallowing is difficult in inflammation of the throat and tonsils, catarrh of the gums, periostitis dentalis, stomatitis mercurialis, salivation, angina, and thrush.

A few of the "Perles" placed in the mouth dissolve into a strongly antiseptic fluid of agreeable taste, cleanse the mouth and mucous membrane of the pharynx, and immediately remove the fungi, germs, and putrid substance accumulating about the tonsils, thereby preventing any further injury to the teeth.

METHOD OF APPLICATION:

Take 2—4 Perles, let them dissolve slowly in the mouth, and then swallow. Being packed in small and handy tins, Radlauer's Antiseptic Perles can always be carried in the pocket.

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S. RADLAUER - Pharmaceutical Chemist

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Standard in strength and quality. Reasonable in price. Satisfactory in use.

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Toronto, - - Ontario

Side Lines for Druggists.

Business of to-day is somewhat like the seashore; the rock, the real foundation of the business, whatever it may be, may stand firm and unmoved by the gale or wave, but the outside branches of trade, or, as they are familiarly termed, the "side lines" of business, being swept by the passing wave, or moved with every ebb and flow of the tide, are, in many cases, either swept away entirely, or, at least, moved by the action of the elements. This may aptly apply to the drug trade of to-day. The sale of medicine, the dispensing of prescriptions, those things which belonged to the apothecary's art of years gone by, are still the foundation stone of the druggist's trade; but many of the outside lines which, from time to time, have been added, as, for instance, the trade in toilet goods and perfumery, in proprietary medicines and druggists' sundries, have been like the sand on the seashore, wafted hither and thither until they are now scattered in all directions and amongst all classes of traders. It, therefore, behooves every druggist to be on the lookout for anything which may add to his business, and make up, in some measure, for those things of which the sales are lessening. Some ideas will be given in these pages, from time to time, concerning lines which suggest themselves as being adapted to the drug trade, and which will, at least, be worthy of looking into.

However, there is one point to be carefully borne in mind, that "whatever is worth doing is worth doing well," and whatever is undertaken should be with a determination to make it a success, if possible, by *persevering* effort. We do not presume to say that any suggestion we may offer will be adapted to all drug stores. Every man must use somewhat of his own judgment, and not rush into anything unless he sees in his venture a reasonable prospect of a fair return, either directly or indirectly. The first idea which suggests itself to our minds at this season is something which would be particularly applicable to the approaching cool weather, and in this connection we speak of

(1) HOT SODA.

If proper methods are adopted, we see no reason why there should not be a ready sale for this article in Canada during the winter months. The history of this beverage in the United States shows that it has proved a decided source of revenue to those druggists who have handled it properly and looked after it carefully. The outlay for the apparatus need not be large, and the variety of beverages which can be offered is such that, in a suitable locality, the venture should prove a profitable one. There is always a demand for something drinkable, and, in this climate, it seems to us that hot drinks, whether they be plain soda, chocolate, beef tea, coffee, clam juice, phosphates, or any of the numerous preparations and syrups that are offered, should prove acceptable draughts to the chilled individual. There are many who would gladly purchase these who would not, under any circumstances, go to a restaurant for them, and the profit is such as to make it an object for the dealer to provide an article that will ensure a return of the customer.

It is also well to consider whether, even if a direct profit does not appear on looking into it, the indirect advantage from having these beverages might not be worth the trouble, forming, as it does, an excellent advertisement for the store. Of course, there are some things which should be looked into. It requires constant attention, perhaps late hours, and a tendency, in some cases, to develop into a sort of loafing bar-room trade. This latter must be avoided at all costs, and, if the business cannot be conducted without degenerating into this, it had better not be attempted, as it will only prove a source of loss, and a decided hindrance to the drug business. We offer these suggestions for what they are worth. In our opinion, many druggists in this country could make a success of such a venture, and, at any rate, it will bear looking into.

Influence of Trade Journals.

That the influence of the trade journal has enormously increased of late years, and is still increasing, no intelligent business man or woman will venture to deny. At the first inception, the trade journal was little else than a mere advertising sheet, but by degrees it has advanced to the position which it to-day occupies, of being an indispensable representative of the special branch with which it deals. Within its proper sphere, it wields a power and influence not inferior to that of the most prominent daily papers. In fact, to many, the daily paper is simply a news sheet, and is not looked upon in the light of a practical guide. But that is just what the trade organ is felt to be. It is not merely read for the sake of the gossip and records of business changes it may contain, but the actual hints and information touching upon the practical working of the trade are diligently perused and thought over, with a view of adoption. A trade paper which does its duty towards its readers fills the place of a professor of technology. It has at once a prophetic outlook into the future and a retrospective glance into the historical past, and holds up the mirror of its visions to its readers, who are thus able to compare the past with the present, while preparing themselves for coming events.

The advertisement pages are as open markets to him, wherein he sees what is being brought forward, and how prices rule: He learns, too, something of the methods and characteristics of firms anxious to compete for his custom, and may form an opinion to guide him in his movements and dealings.

The business man or worker who cannot see any reason for the existence of a trade journal published in the interest of the industry in which he is engaged, and who "can't afford" to subscribe for at least one such journal, is fixed fast in a narrow rut. He will never remove mountains or build bridges that lead to new spheres of activity and success.—*Patent Medicine Journal.*

N. W. D. A.

At the annual meeting of the National Wholesale Druggists' Association, which concluded its session at Denver, Col., September 5th, it was decided to hold the next meeting at Niagara Falls, N.Y. J. C. Elial, of Minneapolis, was elected president.

Valkyrie's Pilot.

Edward Young, who piloted the *Valkyrie* in her recent race with the *Defender*, is a native of St. John, N.B., and commenced his career as drug clerk in George Bayard's store in Market Square, St. John. When about seventeen, he went to New York and obtained employment in a drug store there, but gave up drugs shortly afterwards.

"A Cheap Druggist."

A druggist of Hamilton, Ont., fills over a column of one of the dailies with an advertisement of goods at cut-rate prices, and has the above heading. When it is necessary to resort to such advertising, is it not strange to read, in the body of the advertisement, "Mostly everybody deals at my store"?

Acknowledgment.

Our thanks are due to Messrs. Oppenheimer Co., Limited, of London, Eng., for an invitation to inspect their collection of medical and surgical antiquities from Rome, Pompeii, etc., at the Savoy, London.

College Announcements.

We are in receipt of announcements and prospectuses from the Montreal College of Pharmacy, the College of Pharmacy of the City of New York, the St. Louis College of Pharmacy, the Philadelphia College of Pharmacy, and the School of Pharmacy of the University of Michigan.

RUBBER TREE SEEDS.—Although the rubber tree of Assam (*Ficus elastica*) is one of the largest in the forest, its seeds are so small that a pound of them sent to British West Africa by post numbered 270,000. These tiny seeds germinate readily, and it is hoped that this variety of rubber will succeed in Africa.

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

SEPTEMBER 16TH, 1895.

A Reflection.

The remarks made in our last issue under the heading, "A Retrograde Movement," have been fully sustained by our readers, many of whom have expressed their regret that the new council should seem more eager to collect an additional pecuniary allowance than to exert themselves for the advancement of pharmacy. The reply to the request of the sister province was barely courteous, even if true, as not the faintest expression of interest was manifested in a project which was designed for the general welfare of the drug trade. The moral support of the council of the Ontario College was all that was sought by their Quebec brethren, and we cannot but express our surprise that such should not have been willingly given. When the reply reaches our eastern confrères, we will not blame them for expressing the opinion that it is not surprising that an association in Ontario should come to grief. Personally, we are always willing and anxious to support the actions of our council when we can do so conscientiously; but, in the present instance, their inconsiderate action has cast an unworthy reflection on the entire drug trade of the province, and, as a mouthpiece of such trade, we cannot but resent it. Whatever may be the reciprocal feelings of our Quebec friends who are desirous of having a Dominion Association formed, we trust they will maintain the high ground upon which they are seeking to act, and yet be successful in developing an association alike creditable to them and to the Dominion of Canada.

Cut Prices in Hamilton.

A correspondent writes us, commenting on our article of last month on the inaction of the Hamilton Druggists' Association in regard to cutting prices. He lays the blame principally on members of the Ontario Chemists' Association, whose headquarters are in that city, and who, he claims, in endeavoring to fight the patent medicine proprietors, and to place their own preparations on the market, have been the primary movers in the cut-rate war which now exists in that city. He also claims that the endeavor to organize a Provincial Association was a failure, mainly because the stockholders in the above-named organization wished to use it for their own purposes. How many of these charges are correct we cannot say, not being in the confidence of the promoters of the company. Certain it is that if the war on prices of proprietaries which now exists is in any way due to the action of these men, they are only "cutting off their nose to spite their face." They cannot do away with proprietary remedies, especially by endeavoring to substitute others for them, and any action taken in this way will, in our opinion, undoubtedly recoil on themselves, as their own preparations will probably receive similar treatment. Our correspondent further remarks, "What we want is a *National* Association, as you suggest, and I hope to see it at an early date." This feeling, we find, is not confined to the few, and the action taken by the Council of the Ontario College of Pharmacy, and which we criticized adversely last month, has stirred up a strong feeling amongst the pharmacists of this province, and has awakened in them an interest which we believe will be the means of cementing the bonds of kindred feeling which should exist between members of the trade in all the provinces, and will ultimately lead to the desired consummation of a "National Association."

To Casual Contributors.

There are very many druggists throughout the province who have the talent and ability to write interestingly on subjects which are beneficial and interesting to their fellow-druggists. To those who have so written on many past occasions we tender our appreciative thanks, and invite them to contribute again, and to those who have never written we extend now an invitation to do so. We do not keep a waste-paper basket for penned thought. The pages of the CANADIAN DRUGGIST are ever open to receive it. Thoughts that are helpful to you will doubtless help others, so send them to us.

The Metric System.

The Select Committee appointed by the Roseberry Government to consider and report whether any and what changes in the present system of weights and measures should be adopted has issued its report, which was almost unanimously accepted by the committee. The report recommends that the metric system of weights and measures be immediately legalized, and that the use of the system be made compulsory after two years. It also stated that both home and foreign trade would be benefited by more simple and uniform standards than at present in use. It is altogether probable, therefore, that the metric system will be adopted in England, and subsequently in this country. The system is one result of the desire of France to place everything on a scientific basis. The report to the French National Assembly proposing this system was presented in 1791, the meridian measurements adopted in 1799, the pure decimal system coming into force January 1st, 1840.

It has been adopted also in the Netherlands, Spain, Italy, Austria, Greece, Germany, Norway and Sweden, Portugal, Mexico, Switzerland, the Argentine Republic, the United States of America, and other states. The theory of the system is that the metre is the forty-millionth part of the earth's circumference, or a ten-millionth of a quadrant of the earth through Paris. This was named the metre; the litre is a cube of one-tenth metre; the gramme is one-thousandth of the litre filled with water at 4°C.; the franc weighing four grammes. The multiples are as follows:

Milligramme.....	.015 grain
Gramme	15.43 grains
Decagramme.....	154.32 "
Hectogramme....	1543.23 "
500 grammes....	7716.17 "
Kilogramme	15432.35 "
100 kilogrammes.	220.46 lbs.
Decilitre.....	.176 Pint Imp.
Litre.....	1.761 "
Decalitre	17.608 "
Hectolitre	176.077 "

There is no doubt that when adopted, this system will recommend itself for its simplicity and convenience in dealing with other countries. As stated in our June issue, the Imperial system being so universally used throughout the British possessions, its continuance for some time will be almost absolutely necessary. We look, however, for the introduction in the Imperial Pharmacopœia of the Metric in conjunction with that of the Imperial system.

Buyers are more interested in what is sold than in who sells it. The man who makes his name a too prominent feature of his ads. does not recognize this fact.

The Montreal Optical Company

BEG to inform the trade that for the convenience of their Ontario customers, they have opened a branch establishment at

60 Yonge Street Toronto

Where **prescription work** will be executed, and orders filled.

In connection with this establishment, courses will be given at the Optical Institute of Canada, commencing on the Second Tuesday of each month.

The Prescription Department of the Toronto Branch of the M. O. C. will be under the supervision of the Principal of the Optical Institute of Canada, so as to ensure absolute accuracy in every detail.

A SPECIAL CUT IN TEST CASES THIS MONTH

A. Y. SCOTT D. MacMILLAN

Scott & MacMillan

MANUFACTURERS OF

HIGH-GRADE PERFUMES, PERFUMED WATER AND SPECIAL TOILET SUNDRIES

ODORS

WHITE ROSE
JOCKEY CLUB
ESS. BOUQUET
LILY OF THE VALLEY
WHITE HELIOTROPE
CRAB APPLE BLOSSOM
STEPHANOTIS
WOOD VIOLET
NEW MOWN HAY
MUSK
YLANG YLANG

TRADE MARK

ODORS

FRANGIPANI
PANSY VIOLET
HYACINTHE
SWISS CLOVER
PERSIAN LILAC
SPANISH BOUQUET
SWEET PEA
MO-KO-KA
JASMIN
CARNATION

PERFUMED WATERS

LILAC • VIOLET • LAVENDER • FLORIDA WATER, ETC.

SUNDRIES

ALMOND CREAM, PANSY VIOLET TOILET POWDER, PANSY VIOLET JELLY CREAM, PANSY VIOLET TOOTH POWDER

XMAS GOODS

Our travellers are now on the road with a full line of hand painted goods for this trade.

WE desire to call the attention of the trade to our

ALMOND CREAM

which has taken first place among all toilet preparations for the skin and complexion. It contains nothing injurious, but everything that goes to improve the complexion, imparting a soft and velvety feeling.

WE have secured from **Andrew Jergins & Co.** the agency for the sale of their **high-grade milled and highly perfumed**

TOILET SOAPS

a trial of which will convince you that they are superior to all others, and can be sold at a price to compete with those of other manufacturers.

The Lofoten Islands and Their Principal Product.

The Lofoten Islands are situated far to the north of the Norwegian coast, and well within the Arctic Circle. They are justly celebrated for their scenery, and the advice is always given to summer tourists to be sure to include them in their sight-seeing. Norway itself is a country which abounds in majestic, almost awe-inspiring, scenery, its specialty in this line being the fjords or arms of the sea that run into the iron-bound shore with an infinite variety of tortuous windings. The largest fjord is said to be the Sogne Fjord, in latitude 61°, which penetrates one hundred miles into the interior, everywhere shut in by high and precipitous rocky walls, and with a mean depth of 4,500 feet. To sail up such a fjord, with its walls sometimes apparently within a stone-throw on either side, and to look away down in the far depths of the motionless water, gives one an "eerie" feeling that can hardly be appreciated by description only—to look for the first time on the dark, gloomy, oily-looking waters of the Whirlpool Rapids below our own Niagara Falls perhaps best approaches the sensation.

A Fishing Station in the Lofotens—Waiting for the Signal to set out.

To speak of Norway's scenery, especially in the vicinity of the Lofoten Islands, and to forget to mention the glorious never-ending twilight, would be to forget half its charms. Of course we speak of the summer season in speaking of the twilight; it is then truly the land of the midnight sun. In winter it is, on the other hand, equally well called the land of the midday moon and the noonday aurora. A visitor from Canada, where we have practically no twilight, is probably more impressed with the glorious effects of light and shade which the enchanting, subdued twilight affords to the landscape than he is with anything else that he meets on his tour.

The Lofotens consist literally of a "thousand islands" of irregular mountain peaks and precipices, some of them 2000 to 3000 feet in height, the passage between them being very tortuous, winding in places among hundreds of small rocky islets that seem alive with seabirds. The principal islands are Hindo, Ando, Lango, Ost Vaago and Vest Vaago; two small ones, Moskenæso and Mosken, in the extreme south of the group, are only of interest because they are separated by the channel in which occur the tidal currents that were once made famous to the imagination under the name of the Maelstrom.

The Lofotens in winter have a very different appearance from what they have in summer. In summer the islands are practically deserted—the scenery is then at its prettiest, but nobody to admire it. Norwegians do not flock together by the thousands simply to admire scenery, for this is a subject that is meaningless to them, yet in winter these islands will have thousands of visitors, but they will all be bent on business, not pleasure.

About the middle of January there begin to centre in the Lofoten Islands countless processions of men by land, and boats by sea, that have come from every part of Norway and Sweden, and from the surrounding districts of Lapland and even Finland. All the varied costumes of the individual localities are represented, and the old frequenter of the fishery station can almost tell where each of them belongs by the dress alone. So great is the crowd, and so motley in character is it, that the Norwegian Government has put the whole fishing industry under the protection of stringent naval police regulations. These, among other things, govern the time of the day when fishing shall begin and when it shall be discontinued—this regulation in particular being intended to prevent net stealing. This last fishing season, from the middle of January till the middle of April, there were no fewer than 6,280 boats and about 28,000 men collected at the Lofoten station for the one purpose of fishing for the cod.

Sea Lapps and Cod Fish "Flakes."

As the *Gadus Morrhua*, the scientific name given to the fish by Linné, the cod would certainly need an introduction, but under its popular name it is probably the best known of all fishes, and is the object of pursuit for which the great fish-

eries of Europe and America are established.

It is essentially a deep-water fish, and is never seen in fresh water. It visits the Lofoten Islands in countless millions, the shoals spreading from there as a centre more or less thinly from Finmarken on the north to about as far south as Holland and the shores of the British Isles. It appears to be the very multitude of its presence in the Lofotens that crowds out other fish, for in Finmarken, for instance, where as an overflow from the centre it arrives a little later in the winter, it is observed to be about equal in number with other species, such as coal-fish, ling, pollock, merlane, etc.

Hut of Finmarken Lapps.

Cod-fishing is controlled by the government, yet the regularly-appointed officials that are found present at the various fishing stations have little, indeed nothing, we will say, to do with the purity of the cod-liver oil product. They settle disputes, it is true, between fishermen; give the signals that announce the time for setting off to the nets, and advice upon the best methods of preparing the fish for market; they even grade the oil, but the grading is based entirely upon a color test without regard to purity of source or method by which it has been prepared. When it is remembered that many of the cod fishermen are agricultural laborers for nine months of the year; that they all belong to the lower and least educated classes; that they are indifferent to, and probably ignorant of, the medicinal superiority of cod-liver oil over the oil made from other livers; that higher prices are obtainable in Bergen, the commercial centre of the fishing industry, for one kind of oil rather than for another—it is not surprising that we find much oil offered that is not true Lofoten, but more or less mixed compounds.

The method of "trying" out the oil from the livers has much to do with its palatability and also digestibility. Instead of now waiting till the fishing is over and then the individual fishermen each having to "render" the livers assigned to him as his share, accumulated during the season and therefore more or less putrescent, the livers are bought daily from the fishermen, and are fresh, clean, and select. The livers are then, after being subjected to a mincing process, put into double-jacketed steam kettles for "rendering" or "frying"; this operation is carried out on board a vessel specially equipped for the purpose with every facility for handling the livers and bottling the oil before the fish have been a day out of their native element. But although the fisherman may get a higher price for his cod livers sold in this way than he could possibly get as an equivalent from the oil that he would make from them after they stand till the close of the season, yet it is sometimes a difficult matter to buy the livers. They and their fathers before them have been accustomed to going to the *stævnetid*, the home-time or meeting-time, at Bergen, with their oil, and the trip is not only anticipated as a pleasure, but is looked on as a mark of respectability—a test of social standing—and they consequently give up with reluctance the livers which (as oil) furnish them with the excuse for going. This feeling must, of course, grow less as time goes on and the fishermen themselves admit that the modern method yields a product superior to what they can turn out by the old individual method. It is only another instance of the benefit accruing from specialized capital and labor.

Group of Mountain Lapps with their Reindeer.

So far, we have said nothing about the use of cod-liver oil as a medicinal agent, yet it is doubtful if there is an article employed in medicine of more general usefulness. There is much to be said in favor of any remedy which has won its way into such universal confidence, but when we remember that old style cod-liver oil, always more or less rancid and nauseating, has accomplished this by sheer merit, what, might we not ask, are the probabilities for its more extended employment when prepared by modern methods and as nature makes it—bland, palatable, and free from rancidity?

Cod-liver oil is an oil that is eminently assimilable; indeed, it may be taken as an assured fact that it is the most easily digested of all animal oils or fats. This is perhaps due to the presence of a small quantity of liver ferments and of biliary matter—the latter assisting in making its emulsification extremely easy—the former having already partly prepared the oil for its immediate absorption by the nuclein of the cellular tissue of the body. It also contains minute quantities of iodine, bromine, and phosphorus, which are derived from the fishes' food and happen to be in transit through the cellular tissue of the

liver at the time of capture. We know, however, that the iodine is not present in the oil as an iodide; that is, it is there combined in some organic form and cannot be isolated without destructive changes being effected. In the same manner, the phosphorus is so intimately and organically combined that it cannot be considered apart from the presence of the oil itself. We know also that phosphorus exerts a peculiar specific action upon the reproduction and upbuilding of the cellular elements, especially in the formation of cell nucleii,and by this means imparts to the body an increased property of what we may call *vital resistance*—that is, an aptitude for life and normal reproduction despite the incessant causes of physical, chemical, and pathogenic deterioration. The first sign of breaking down is the inability of the system to assimilate the phosphorus necessary for new cell growth from the accustomed food. In such diseases, therefore, as consumption, rickets, etc., or wherever the constitution is below par, the presentation of a supply of easily assimilated phosphorus is exactly what is necessary in the circumstances, and if such be furnished it will in many, if not indeed the majority of, cases enable the system to accumulate sufficient reserve force to carry it into convalescence beyond the reach of the breaking-down influences which previously had the mastery. Cod-liver oil steps in here and furnishes the human economy this provision of phosphorus in the form in which it exists in milk, in yolk of egg, in the brain, in legumin, in casein, and in nuclein; that is to say, in the active organized condition in which it can be best assimilated and directly utilized by the body.

In many ways, therefore, the world is benefited by the operations of these hardy Northmen, who, gathering at the Lofoten Islands by thousands at the severest season of the year, venture forth on the wintry seas in the face of the greatest dangers. Probably few of these fisherfolk realize or have any conception of the fact that in many a far corner of the world the sufferings of the sick are relieved and many are made strong and well as a result of their labors and sacrifices.

We are indebted to Messrs. Parke, Davis & Co., of Detroit, Michigan, whose Improved Lofoten Cod-Liver Oil is so universally known and appreciated, for the plates that are used in this issue.

Practical Optics for Chemists.

THE SPECTACLE TRADE.

There is a very common idea that any one can sell a pair of glasses or spectacles, nor is it, in one sense, far wrong either. But is there not something beyond this? Granted that it is not at first sight apparent that more profit is to be gained by a careful examination of the sight and the recommendation of correct glasses, it will be, on second thoughts, conceded that, like everything else, a little extra care will pay in the long run, if not immediately, and it is by no means definitely settled that even an extra charge at the time may not be made.

To be able to examine the sight properly it is necessary to understand the elementary laws of optics, and if, in endeavoring to explain these to students and those who are really unacquainted with the primary laws, we repeat what is but an "old, old story," those who know it must perforce skip it or smile derisively.

Light travelling through any medium, whether air, glass, or water, always travels in straight lines till it meets with an obstacle. This is very apparent when entering a room in summer when the Venetian blinds are down, and through the chinks of which the sun is shining; the golden bars of sunlight will be seen as proceeding in straight lines. Have we not often, too, seen very much the same thing in nature out of doors, when the sun shining through the clouds, as the country people say, sucks up water, or, as more aptly put by a poet, throws "the shadow streaks of rain"?

We have so far taken the sun as the source of light, but suppose instead of that we take as the source a candle about three feet off. In such a case the rays of light are no longer parallel, but diverge, and this can be readily proved. Place a

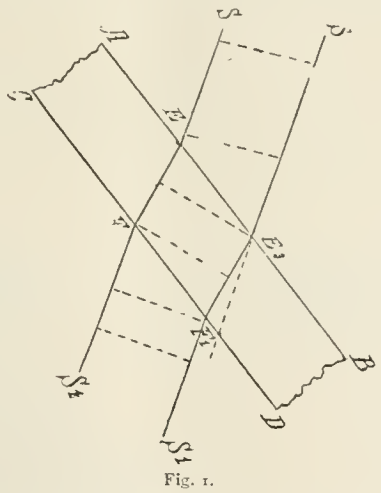


Fig. 1.

candle in a box, one side of which is pierced with a small hole of about one-quarter inch diameter; take the whole arrangement into a darkened room, and, if you are a smoker, blow a little cigarette or pipe smoke about six inches from the hole, and it will be at once seen that the rays spread out from the hole fan-shaped, or "diverge."

Now take an ordinary reading glass or Coddington lens and place it some little distance from the hole, and behind the glass place a white card; by moving it nearer to or further from the glass, we shall get an image of that hole; keep the distances constant and again puff a whiff of smoke between the lens and card, and it will be seen that the rays of light contract and get closer together, or "converge."

Supposing a ray of light meets with an obstacle, what happens? It all depends on the nature of the obstacle. If black velvet, it is absorbed or swallowed up, or lost; if a mirror, it will be reflected or bent out of its straight course to another and different part of the room from that which it would have reached. Supposing, however, it is a piece of glass, what will happen? To answer this we must take a little time and make use of one or two diagrams. Assume the glass to be a parallel plane—that is, a straight piece of glass with parallel sides—Fig. 1—A, B, C, D, and let S be a ray of light striking the glass at E. If the glass were of the same density as air, the light would go straight through, as shown by the dotted line, but the glass is denser, or, in other words, its particles are closer together, consequently light travels through it more slowly, and is bent slightly out of its course, but as soon as it gets to the other side C F D, and leaves it, the glass is again slightly bent, but so as to be parallel to its first path. The explanation of this is easier understood if we compare the ray of light to a column of soldiers always keeping in line. Whilst marching from SS to EE^1, they can march quickly because it is level ground, but on reaching EE^1 it is evident that they cannot march quite so quickly if it is broken ground;

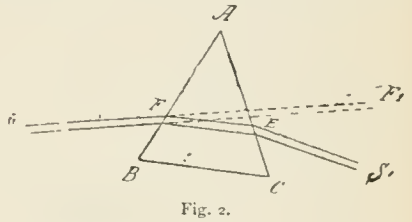


Fig. 2.

their direction is slightly altered, until, on reaching FF^1, they again get on easy ground, and to keep in line it is evident that the left-hand man must swing round a bit, so that their direction becomes FF^1 to S^1 S^1, parallel to their former path.

Supposing now, instead of using parallel plates, we use what is called a prism—a triangular piece of glass of the shape shown in Fig. 2, A, B, C By the same reasoning, we shall see that the direction of the light is changed, and if the eye was placed at S^1 the light would appear to be at F. This bending of the light is called "refraction."

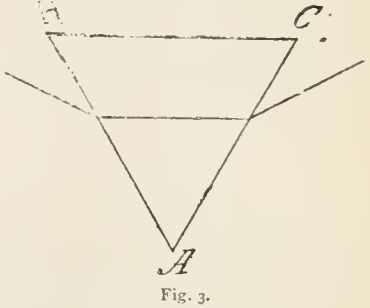


Fig. 3.

It will be noted that the ray S^1 is bent or refracted to S, that is, towards the base of the prism, and if we turned our prism upside down, as in Fig. 3, exactly the same would take place, namely, the light is refracted towards the base; therefore

we establish another fact—light is always refracted toward the base of a prism.

Supposing now, we place two prisms point to point, as in Fig. 4, it is obvious that the two rays, R^1R^2, can never meet after passing through the prisms. It is also evident that actually, if instead of straight lines we have curved ones, as shown by the dotted lines in Fig. 4, we shall get precisely the same effect, and thus we get "divergent or concave lenses,"

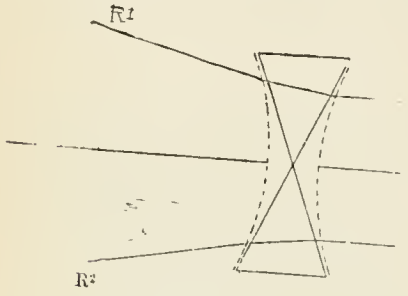


Fig. 4.

which are always thinner in the middle than at the edges.

If we place our prisms base to base the rays R^1R^2 are refracted towards the bases, and consequently they must cross somewhere, as shown at *f*, Fig. 5. Here, again, we can replace the straight by curved lines,

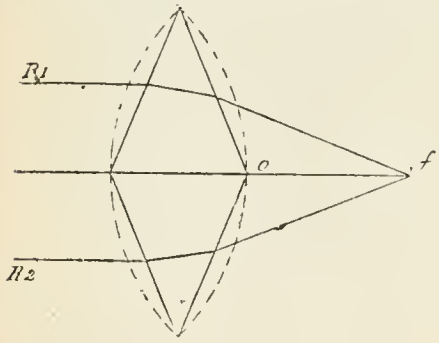


Fig. 5.

and we get precisely the same effect, and "convergent or convex lenses," which are always thicker in the middle than at the edges.

The principal forms of lenses are shown in Fig. 6. 1 is a plano-convex, that is, has one side plane or flat, the other convex; 2 is a bi-convex; 3 is a convergent concavo-convex, generally called a convergent meniscus; 4 is a plano-concave;

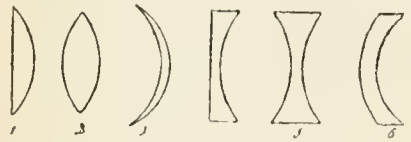


Fig. 6.

5 a bi-concave; 6 a concavo-convex, or divergent meniscus.

Nos. 1 to 3 are also called positive lenses, and Nos. 3 to 6 negative lenses, but we need hardly enter into this subject except to point out that these terms apply to the formation of a real image or focus.

We saw in Fig. 5 that the parallel rays R^1R^2 after refraction crossed one another, and this point of intersection is called the principal focus of the lens, and the distance between it and the lens is called the "focal length of the lens," or, briefly, the focus.

We will now take the formation of an image in a camera. Let A, B, C, D, Fig. 7, be a camera or box, and O a small hole in one side, and EE an arrow, which shall represent the object. Rays of light proceed from all points of EE in straight lines, though, for convenience sake, only two are here shown, and, passing through the hole O, form a small image of the arrow at FF upside down. If instead of a plain aperture we use a lens, precisely the same thing happens, only when a lens is used

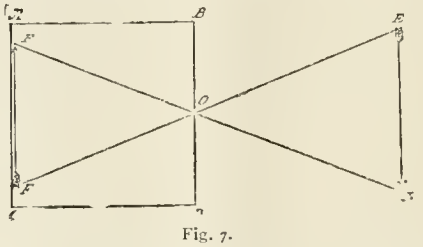


Fig. 7.

there is but one point at which a sharp image can be formed; but the image is still upside down.

Precisely the same thing happens in the eye. Fig. 8 represents parallel rays of light entering a normal eye and being brought to a focus on the retinal rods and

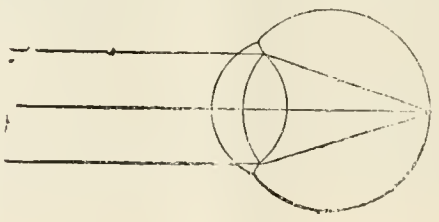


Fig. 8.

cones, and such an eye is called "emmetropic." When, from some cause, such as a shortened eyeball, parallel rays are focussed behind the retina, as in Fig. 9, the

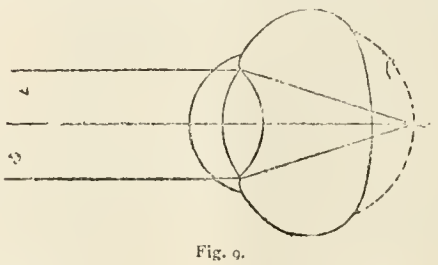


Fig. 9.

eye is said to be "hypermetropic," and when the rays are focussed in front of the retina, as in Fig. 10, then the eye is said to be "myopic," as in Fig. 10.

Spectacles are used to correct these faults, and upon the correct diagnosis and correct adjustment of the glasses depends the success of the trade.

We have seen that concave glasses cause parallel rays to diverge, and that convex make them converge. Now, if we place in contact a concave glass and a convex of equal power, so that the divergence of the former is exactly equal to the convergence of the latter, it is obvious that we shall have nothing more than a piece of curved glass without any divergent or convergent power; but if we so adjust the powers of the two glasses we may obtain any effect we like, and this is only what an optician does with the eye. It is obvious that, taking Fig. 9 as representing the condition of any one's sight, it

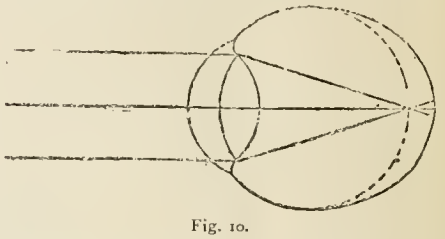


Fig. 10.

is possible, by using a convex glass, to so shorten the focus of the parallel rays that they will sharply define on the retina, and also in the case of Fig. 10, by using a concave glass, we can lengthen the focus of the parallel rays.

It must not be assumed that both eyes are always alike; one may be hypermetropic and the other myopic, therefore each eye must be tested separately.

There is one other defect from which the human vision may suffer, and it is far more common than is supposed, the probable percentage of perfectly normal eyes, particularly with respect to this defect, "astigmatism," being very small indeed. Practically, astigmatism is an inability to see clearly lines at right angles to one another, and is due to unequal refractive power of the cornea in meridians at right angles to one another. This is shown exaggerated in Fig. 11. Let L represent an astigmatic eye, and R^1 R^1 R^{11} R^{11} a black cross on a white ground, it will be seen that the rays of light from R^1 R^1 naturally pass through the eye at right angles to those rays from R^{11} R^{11}, and are brought to a focus at I, whilst those from R^{11} R^{11} are focused at II. It is obvious, then, that it is impossible to see the two lines simultaneously sharp. To cure this defect plano cylindrical lenses

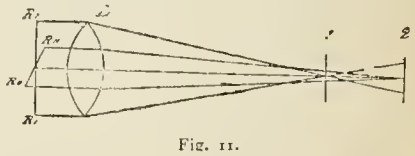
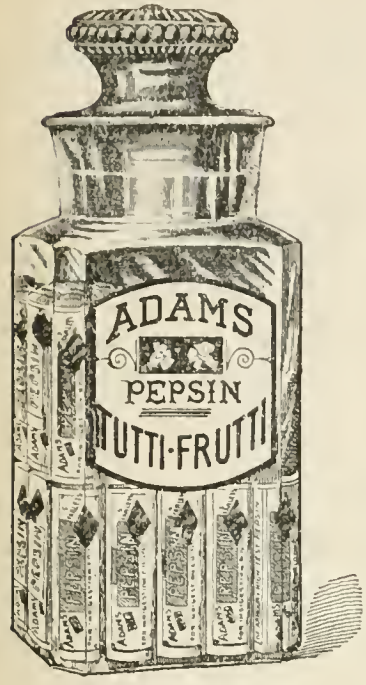


Fig. 11.

are used, that is, lenses which are plane or flat on one side and the other ground to a cylinder, not a sphere, as other glasses are. If, of course, the eye is myopic or hypermetropic also, the cylinder may be ground to the necessary curves.

"Presbyopia" is now the only other defect we need describe, and this is due generally to advancing age, and it may be defined as a lack of power to read or work at close quarters. The normal distance is stated to be twenty-two centimetres, and when the work or book has to be held beyond this then convex glasses are required, which should only be used for near work, distant vision being generally good.



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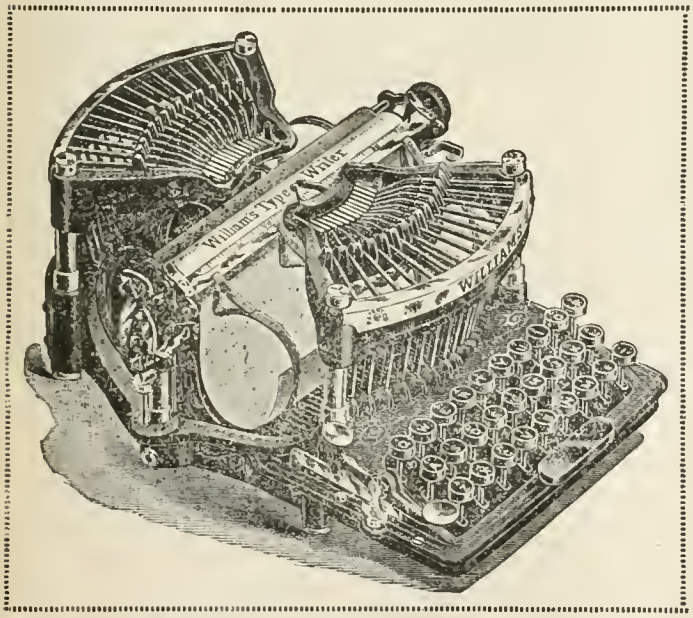

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Having thus briefly run through the ordinary defects of human vision, it is only necessary to describe the system of numbering the glasses. Prior to 1872 lenses were numbered according to their radii of curvature, 1 inch being taken as the standard, and a 4-inch was expressed as ¼, and as this was found extremely inconvenient it was decided at an International Congress to take a lens of 1 metre focus as the standard, and it was called a "dioptre." This has been found extremely convenient, and a lens of 2 dioptres, or, as it is always written, 2D, is twice the strength of 1D, and has a focal length of half a metre, 10D, is of 1/10th metre, or 10 cm. focus. For convenience, decimals are also used ; we may thus have a glass of 10.5D or 12.75D.—*Pharmaceutical Journal.*

A Canadian Pharmacist on African Affairs.

Many of our readers will remember the familiar face of Mr. R. R. Martin, who for some years was in the drug business in Toronto, and was for some time afterwards manager of the New York house of Sharpe & Dohmer, manufacturing chemists. Mr. Martin has recently returned from a trip to South Africa, taken principally for the benefit of his health, but at the same time looking after the business of the firm of Oppenheimer, Son & Co., of London, with whom he is now engaged. In the course of interviews with the representative of the *British and Colonial Druggist*, Mr. Martin gave some interesting particulars of his trip, from which we gather the following. On his arrival in Cape Town he immediately set about taking every advantage in climatic conditions and the relaxations which the neighborhood furnished. One of his earliest experiences of the latter kind of enjoyment was witnessing a Kaffir fight on Christmas day. The way the Kaffirs opened up business with their knobkerries impressed Mr. Martin very much.

Coming to business, which was not neglected during his tour, Mr. Martin tells us he believes he has done well in the colony, though results are still, to some extent, to be seen. He has great faith in the good reception which original and valuable preparations have with the medical profession. His journey through the Cape Colony, Orange Free State, the Transvaal, Natal, and into Matabeleland, gave him a favorable impression of the medical men and pharmacists wherever he met them. He found the people very conservative, and attributes this to the large population of Boers, who, he says, keep back medicine as they do farming.

Speaking of the appearance of the pharmacies, Mr. Martin says these look small at first, and it is surprising how so much business is done in them. The stock, which is large, is generally at the back. The arrangement of those in Cape Town is "very English." Those more inland, however, make prominent displays of leading "patents." In the Dutch districts Dutch medicines take this prominence. While in Durban, Mr. Martin heard a preacher say, "The Gospel should be spread about and advertised everywhere, just like Pink Pills ; wherever you go you should hear it." As to whether pharmacists could succeed in South Africa, Mr. Martin says it is not easy to say. He thinks, however, any man with capital and energy can succeed, though it is to be remembered that chemists have increased more quickly than has the population. A much larger capital is wanted there, he says, than in this country. Johannesburg struck him as resembling Denver, U.S., in that, so he puts it, the climatic changes cause unrest, and result in energy and development. It is only eight years old, and yet has about 100 medical men, 25 retail chemists, and half a dozen wholesale. There are also some good businesses in Pretoria. Prices there are about 40 per cent. over cost of articles in London.

As regards assistants, Mr. Martin considers that a good man is sure of a place, but he ought not to go out without capital, so that he can afford to wait if a place is not open on his arrival. Kimberley, Grahamstown, Queenstown, Pietermaritzburg, and Johannesburg are the places recommended by Mr. Martin for those seeking renewed health in South Africa.

Speaking of the competition between America and Britain for South African trade, Mr. Martin says English preparations have the preference, though America is gaining ground.

The Continental Method of Emulsification Applied to Every-Day Dispensing.*

By Walter T. Taylor, New Orleans, La.

By way of introduction, I will say that it is to be deplored that more attention is not given to this method of emulsification by the writers on, and lecturers in, pharmacy. While they do, in most instances, give it credit for "never failing to produce a good emulsion," they, at the same time, altogether discourage its use in prescription practice, whereas my experience teaches me it is the very *ideal method.* Time consumed in dispensing is certainly a question of much moment ; in the saving of this the continental method will accomplish much. No matter what the substance is that is to be emulsified or suspended, it can be more quickly accomplished and with more uniformly better results than by the English method.

In the preparation of the compound emulsions, no apprehension need be felt of spoiling an emulsion once formed. In the event of its homogeneity being destroyed by the addition of other substances, it can be (I might say invariably) reclaimed, as I will endeavor to show by a recital of some experiments touching this point.

* Abstract from the proceedings of the Louisiana Pharmaceutical Association.

As to the method itself, these are the essentials : (1) Finely dusted (powdered) gum arabic. The granulated will not do. (2) A Wedgewood mortar with large flat-bottomed pestle, preferably a No. 5 for emulsions of eight ounces or under, even as low as one-half ounce. Place in the dry mortar the powdered gum arabic ; triturate to break up all agglutinated masses ; add the oil or other liquid, and mix well ; then add *at once* water to the extent of twice the amount of gum, and triturate until the emulsion is complete.

For the fixed and volatile oils (and in the case of volatile oils the intervention of a fixed oil is neither necessary nor desirable) the proportions giving best results are : Oil or other liquid, four parts ; powdered gum arabic, one part ; water, two parts.

Now, it must not be understood that emulsification cannot be accomplished unless these proportions are strictly adhered to. For instance, one drop of oil of turpentine can be just as completely emulsified after triturating it with four or eight drams of gum arabic if water is added in the above proportions. On the other hand, the more viscid of the fixed oils—for instance, castor oil—do not require as much. Eight parts of the latter can be completely emulsified with one and a half parts gum ; in fact, with strictly prime No. 1 gum, one part could do the work. Again, any amount from one and a half to two and a half parts of water to one of gum may be added ; the only precaution necessary is to add at once. The proportions given are easily remembered and will never fail.

For oleoresins, chloroform, terebene, creosote, and such other organic substances, the proportions found to be best are: Liquid to be emulsified, four parts ; powdered gum arabic, two parts ; water, four parts. Where the prescription will permit, a larger proportion of gum would be advisable, especially when, as is generally the case, these emulsions are very dilute. Creosote carbonate can be completely emulsified in the above proportions, but, as it tends to be decomposed, the intervention of one or two parts of a bland fixed oil is desirable, as follows : Creosote carbonate, one part ; oil of sweet almond, two parts ; powdered gum arabic, one part ; water, two parts. Dissolve the creosote carbonate in the oil, and proceed as before. Two parts of gum to eight of copaiba is sufficient. Salol and camphor in combination may be readily emulsified by first rubbing one part of each together in a mortar, until completely liquefied, adding one part gum, and proceeding as above. Salol itself may be emulsified in like manner by heating to the melting point (107°-110°F.) on a water-bath, and proceeding with proportions as for salol and camphor, using a mortar and pestle which have been heated, also slightly warm water. The emulsion of virgin wax used by some prescribers years ago is readily prepared in the same manner.

The resin contained in the resin-

bearing tinctures, myrrh, asafœtida, etc., can be emulsified with these proportions, and it will bear the addition of large volumes of water, and other fluids, without precipitation, even after standing a considerable length of time. Such large quantities of gum are necessary, not for the suspension of the resin itself, so much as to allow the addition of a volume of water equal to the volume of alcohol contained in the tincture, thus overcoming the tendency to precipitate the gum. Alcoholic solutions of camphor, methol, etc., may be treated successfully in the same manner.

A summing up of the points in favor of the continental methods shows : (1) That it gives more uniform and better results. (2) It has a wider range of adaptability. (3) It saves time. (4) It calls for the exercise of less skill.

Another Bismuth Drop.

The most interesting commercial event of the week in pharmacy has been the renewed reduction in the price of bismuth metal on the part of the Bolivian mine-owners, which was announced on the last day of June, exactly thirteen months after the first great breach in the solid convention-fortress which had occurred since 1884. It will be remembered that on June 1, 1894, the "Convention" people suddenly reduced the price of metal from 7s. 3d. per lb., at which it had stood for ten years, to 4s. 3d. per lb., and that in the latter half of November a second, but less drastic, revision was made. Now bismuth metal has again been lowered by 3d. per lb., and all the salts have been correspondingly lowered by the manufacturers. People are asking where all this price-cutting will end. The full extent of the decline is best seen in a tabular arrangement of the price per lb. of bismuth-metal, and of subnitrate of bismuth, its principal pharmaceutical salt, thus :

—	Before June 1, 1894	June to Nov., 1894	Nov. '94, to June, '95	June 29, 1895
	s. d.	s. d.	s. d.	s. d.
Bismuth-metal.....	7 6	4 3	3 9	3 6
Subnitrate (B.P.)....	7 3	5 0	4 7	4 3

The last drop, like its predecessors, is due to the continued importation of bismuth ore outside the control of the Bolivian syndicate, which is apparently powerless to re-establish its grasp of the world's market. Australia and South America continue to send over free-lance consignments, and quite recently a considerable quantity of "bismuth ore" was received in London from Hong-Kong. The "outsiders" have been underselling the conventionists steadily, especially on the Continent, and, as a result of this, certain manufacturers of bismuth salts have been in a position to "cut" the official price-list of the convention to the extent of 2d. to 3d. per lb. on the chief salts. There is but one possible cure for a state of things of this kind, and that is a policy of "thorough."

Such a policy has been followed, on all critical occasions, by the iodine syndicate, and thanks to it that organization remains intact until this day, although notoriously one of the worst of whitened sepulchres in the whole world of syndicates. It does not seem that the bismuth people have been quite as radical in their methods as occasion demanded. When, last June, they reduced their quotations by about 45 per cent., they evidently underrated the pertinacity of their opponents by assuming that that reduction would be sufficient to drive the outsiders from the field. Instead of doing so, the non-conventionized mine-owners have become more determined than ever, and there are now probably few consumers who believe that the reduction just announced will be the last. We understand that the offending "outsiders" are acting in London through the same firm of brokers who held the outside bismuth that disturbed the market a year ago, though we cannot say whether they are the same people.

After the first great drop, in June, 1894, a South American gentleman, resident in London, who has considerable interests in the syndicated Bolivian mines, left for Bolivia, in order, it is thought, to strengthen the hands of the syndicate in that country. He has lately returned, but, judging from what has just happened, his journey has not been a very successful one.—*Chemist and Druggist.*

Losses and Leaks in the Drug Business, and How They may be Prevented.*

By J. A. Bower, Iroquois, S.D.

This is a part of the drug business that some of our fellow-pharmacists very much overlook. The art and ability of buying stock and taking care of the same is very important. To overcome these difficulties is the object of this paper.

Drugs are often purchased and exposed to light or air, which deteriorates their value greatly. Powders, herbs, and roots are frequently infected with worms and insects. I have found in my experience that frequently an extra demand is made on some article, and the supply may be continued for a time, when all at once the rush will stop, and the balance of the goods remain on hand to be disposed of for almost nothing.

Goods are often stored away, and if not frequently examined they may become soiled or otherwise damaged. Many other little points that are neglected cause some of the indirect losses in business. I may state that stocks in general are not examined and cleaned up often enough. Specialties, sundries, and new things should be brought out and rearranged. People are always looking for something new.

Petty little sales of from one to five cents, that are not paid for at the time, are often forgotten, and only increase the losses and leaks in the business.

Dusty, dirty show-cases and a dusty store have their influence on leaks and losses. There are many other sources of destruction too numerous to mention. A few suggestions regarding the latter part of this subject may be of some value. Clean and dust your show-windows often ; rearrange the display to make it attractive ; have your shelf bottles clean and bright ; such drugs as form a sediment or that precipitate can be filtered, and will add greatly to the looks of your stock ; have your show-cases bright and well arranged ; have your goods all marked with cost, and retail to facilitate the sale and dispensing of same. The use of proper containers is very essential, and making a neat package adds to the satisfaction of your customers. Keep your patent medicines, proprietary articles, and sundries clean and well arranged and convenient.

Be pleasant and sociable. Nothing is more disastrous to trade than a cool, sober, independent appearance and action. Be prompt and attentive to your customers and your business. Let the public know where you are, what your business is, and that you thoroughly understand your profession.

*Read before the South Dakota Pharmaceutical Association.

"Surf" Sea Salt

is a new 15c. pkg., put up 1 doz. 5 lb. pkgs. per case. Price $1; per gross (12 cases) $11. Wholesale houses sell it. Pkg. is a new patent cardboard one, and handsomely printed. Sales of first week in Toronto 120 cases. The salt is clear as glass and of a size that dissolves readily. It never gets damp, and contains no dirt or grit. Analyze 99.98 per cent. pure salt You can work up a good salt trade if you try Why not do it?

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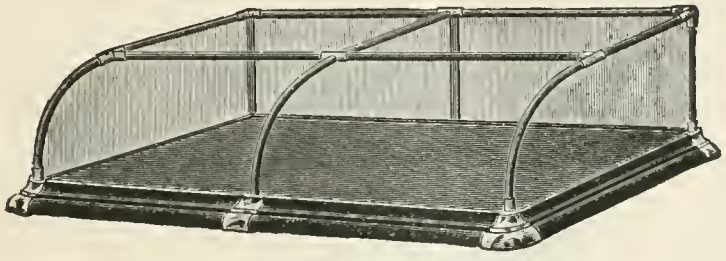

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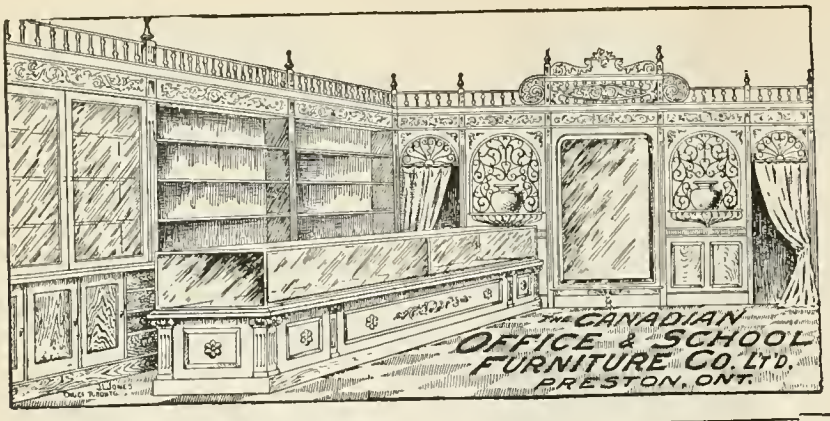

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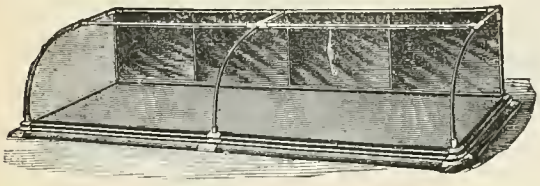

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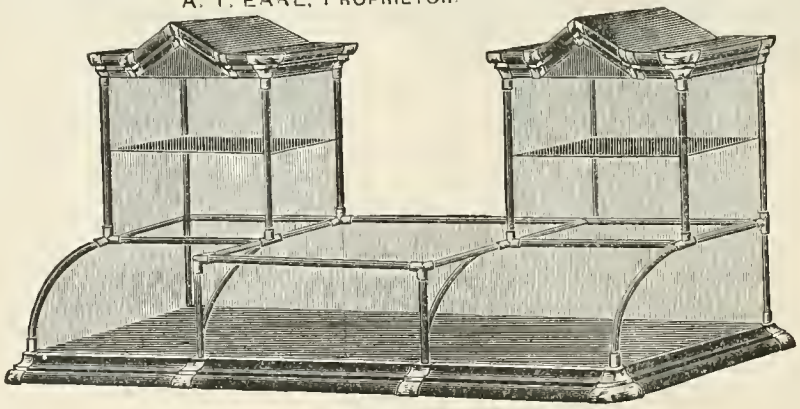

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Pharmaceutical Notes.

To powder camphor that it will not again agglomerate, dissolve the camphor in 1½ parts of alcohol, precipitate by the addition of four parts of water, collect the precipitate, wash with an abundance of water and dry.

Guaiacol Pills.—Guaiacol is made into pills in Berlin by mixing with liquorice and massing with glycerine. A drachm of guaiacol and two of liquorice powder require about five drops of glycerine to make a good mass. Creosote may be treated in the same way.

Dispensing Peruvian Balsam with Oils.—On the continent, balsam of Peru is often prescribed combined with olive or other oils, a mixture which is difficult to present in an elegant form. By substituting castor oil for half the quantity of the oily vehicle prescribed, it is stated that this difficulty may be overcome and a perfectly homogeneous mixture dispensed. Thus a frequent prescription runs: Balsam of Peru and oil of almonds, of each 50 parts; by mixing first 25 parts of castor oil with the balsam, and then adding 25 parts of almond oil, a satisfactory result is obtained.—*Pharmaceutical Journal.*

Characters and Tests of Trional.—This compound occurs in light, colorless, and odorless crystalline scales which are soluble in about 300 parts of water at ordinary temperatures. It is readily soluble in alcohol and in ether, forming neutral solutions. The melting point is 76.5°C. When mixed with powdered wood charcoal and carefully heated in a test tube, it evolves the odor of mercaptan *(Journ. de Pharm. d'Anvers).* The aqueous solution should give no odor on boiling, and after cooling and filtering should not be affected by solutions of nitrate of barium or nitrate of silver; 10 c.c. should not decolorize one drop of potassium permanganate solution (1 in 1000) in five minutes.

Creosal (kreosal) is a tannin and creosote preparation, and is so called by its producers, Balland and Dubois (*Pharmaceutische Centralhalle,* 1895, page 280). It is prepared by heating together equal parts of tannin and creosote to a temperature of 80° C.; then phosphorous oxychloride is added, and the heat continued until all gases are eliminated. The product is now mixed with diluted soda solution, whereupon creosal separates, which is thoroughly washed and evaporated to dryness on a water bath. Creosal occurs as a hygroscopic dark-brown powder, readily soluble in water, alcohol, glycerin, and acetone, but only difficulty soluble in ether. It is recommended in powder form or aqueous solution for inflammation of the windpipe and tonsils in doses of 3.0 gm. (forty-five grains) per day as a medium dose.—*Meyers Bros. Druggist.*

Medicated Saccharine Granules.—Grannat proposes the following method of obtaining medicated saccharine granules, which in some cases would appear to give excellent results *(Journ. de Pharm.* [6], ii., 64, after *Le centre Médicale*). The *modus operandi* is extremely simple. The saccharine granules are first prepared by simply crushing small quantities of lump sugar at a time in a mortar, avoiding the production of dust. This is then rubbed through a wire sieve of five meshes to the centimetre, then the dust and smaller particles are sifted out with a finer sieve having about twelve meshes. Taking kolo as a typical preparation the granules are thus prepared: Aqueous alcoholic extract of kola, 7½ parts; granulated sugar, 150 parts. The extract is dissolved on the water-bath in twice its weight of alcohol (60 per cent. by volume), and the solution poured upon the sugar in a porcelain mortar, mixed with a stirrer, and, when evenly moistened, spread out in a thin layer upon paper, and dried between 20° and 30° C., taking care to separate, from time to time, those granules which tend to aggregate. The granules should be kept in a wide-mouthed bottle. Each teaspoonful weighs 4 grammes, and contains 20 centigrammes of extract. The method is applicable to a great number of drugs, both to chemical salts and vegetable preparations. In the case of certain salts, such as the alkaline glycerophosphates, which are insoluble in alcohol, but readily soluble in water, these must first be dissolved in an equal weight in water, and then should receive the addition of an equal quantity of alcohol; the method of procedure is then the same as in the case of the vegetable extracts. In the case of glycerophosphate of lime, however, which is now being widely prescribed, the salt is very little soluble in water or in alcohol. It is, therefore, suspended in the alcohol and dissolved by the addition of lactic acid.—*Pharmaceutical Journal.*

Liquid Phosphate of Iron and Calcium.—M. Lajara gives the following formula in the *Bulletin Commercial* for a liquid phosphate of iron and calcium:

Phosphate of calcium.....	125 parts.
Lactic acid.....	240 "
Lactate of iron	70 "
Distilled water.....9500	"

Dissolve the phosphate of calcium in the lactic acid, and add a portion of the water. Dissolve the lactate of iron in the balance of the water, mix the solutions, and filter. Twenty grams of this solution corresponds to 25 cgm. of bicalcic phosphate, and about 15 cgm. of iron lactate. The solution is of a light yellowish color, has a styptic taste and a slightly acid reaction. It should be kept in dark bottles, well corked.—*National Druggist.*

Argonin, an Antiseptic.—Silver nitrate, as is known, is very irritating to the mucous membranes, and forms an insoluble compound with the albumin of the tissues, which prevents it from exerting its bactericidal properties to its full extent. Argentamine is not precipitated so readily by albumin; but it is said to be rather irritating. It has long been noticed that the silver albumin precipitate may be rendered soluble by the addition of free alkali. Accordingly, a soluble silver-albumin salt has been obtained by Dr. A. Liebrecht (*Therap. Monatsh,* ix., p. 306) by treating a solution of the sodium composed of casein with silver nitrate, and precipitating with alcohol. The precipitate thus obtained appears, when dried, as a fine, white powder, known as "argonin." It is readily soluble in hot water, less so in cold. To effect a solution of this drug in water, certain precautions should be observed. The powder should be well mixed with the necessary quantity of cold water in a beaker, which is then placed in a water-bath of about 90 degrees C. (194 degrees F.), whereupon the argonin dissolves, forming a slightly colored, opalescent liquid. Stirring hastens the solution, which can then be effected in a few minutes. The liquid may then be filtered through glass-wool. A 10 per cent. solution may thus be prepared. Like other silver solutions, it should be kept from sunlight. It is stated that silver cannot be detected in argonin by the ordinary reagents; it affords no precipitate with ammonium sulphide, or with the chlorides. Argonin contains no nitric acid. In watery solutions it is not as strong an antiseptic as either silver nitrate or argentamine; in solutions containing albumin, however, which form insoluble compounds with the last two preparations, argonin has its antiseptic properties diminished but little; it is then equal to argentamine in its bactericidal power. Argonin is credited with the great advantage over the other two silver preparations mentioned of being entirely non-irritating to the mucous membranes. Definite therapeutic data are yet wanting. —*Merck's Report.*

Chemistry of the Glucosides.—We noted in this column a short time ago that Emil Fischer was devoting his energies to researches on the glucosides, and predicted that good results might be expected. Already a most valuable contribution to the subject has appeared in the current number of the *Berichte.* The glucoside worked upon is amygdalin, and, as the paper is of very great importance, we give a fairly full account of it. It is well known that amygdalin split up, under the influence of emulsion, into benzoic aldehyde (oil of almonds), hydrocyanic acid, and sugar, and from a knowledge of these facts, and the conversion of the glucoside into mandelic and amygdalic acid, caused Schiff to regard it as a compound of benzaldehye-cyanhydrin with a dissaccharide, whose structural formula was:

$$C_6H_5.CH.CN$$
$$|$$
$$O\,C_6H_7O(OH)$$
$$_3O.C_6H_7(OH)_3.$$

Fischer, however, regards the interpretation of the constitution of the saccharine residue as incorrect or incomplete. He considers that amygdalin is a derivative

of maltose, or a similarly constituted diglucose. This opinion is supported by the fact that with the help of the yeast ferment, half the sugar can be split off as glucose without the nitrogenous part of the molecule being at all affected. A new glucoside is thus produced very similar to amygdalin of the formula

$$C_6H_5.CH.CH$$
$$|$$
$$O.C_6H_{11}O_5$$

He calls this glucoside "amygdonitrile glucoside." It closely resembles amygdalin in chemical behavior, but differs very much in physical properties. To prepare it, 10 grams of finely-powdered amygdalin are mixed with 90 c.c. of a solution, in which 1 part of well-washed and air-dried brewers' yeast is mixed with 20 parts of water and kept at 35° for 20 hours. To prevent secondary fermentation reactions, .8 grams toluol is added. The mixture is then kept in an incubator at 35° for a week. The details of purification must be left for reference to the original paper (*Ber.*, xxviii., 1511). The pure glucoside begins to decompose at 140°, and is completely melted at 147° to 149°. Its specific rotation is

$$[\alpha]_d^{20^\circ} = -26.9$$

It has a bitter taste, much stronger than amygdalin; it is easily soluble in cold water, alcohol, and acetone, and can thus be easily separated from amygdalin. It dissolves in 20 parts of hot acetic ether and in 2,000 parts of chloroform, which forms a useful menstruum to recrystallize it from. Fehling's solution is not altered by it. Emulsion rapidly decomposes it into benzoic aldehyde, hydrocyanic acid, and one molecule of glucose.—*British and Colonial Druggist.*

The Kola Nut.

An interesting article on the wonderful kola nut printed in the *Journal* recently served to call attention to the fact that the well known Detroit drug manufacturers, Frederick K. Stearns & Co., commercially introduced the nut into this country, and were the first to introduce its marvellous medicinal properties to commercial form. They have had great success with their kola preparations, and since their introduction to the trade their use has been constantly increasing.

Guru is what the natives of Africa call the kola, a name that is sufficient to make the chills run down one's back, and that sounds as barbaric as most of the terms of the Dark Continent. But fortunately the designation of the kola nut does not interfere with its valuable properties, which have made it prominent among the most important medicinal agents of the present time.

Kola was not recognized as a therapeutic agent until 1882, when Heckel and Schlagdenhaufen published a monograph that gave the drug standing at once in scientific circles. Before that time, however, Frederick Stearns, of this city, procured some of the kola from a well known drug house of London, and published an account of it in his "New Idea." At this time the kola nut was looked upon as a curiosity, and it was not regarded as a valuable therapeutic agent. Even after the appearance of Heckel's monograph in 1883, there was little demand for the drug in this country, although it was used extensively in Europe.

The reports of the British consul at Bahia, however, revived the interest in the drug. A despatch transmitted by the Marquis of Salisbury from Her Majesty's consul at Bahia in 1890 contained a report of the properties and uses of the kola nut, from which the following is cited:

"The West African carriers at this port who use kola are, as a whole, not physically speaking, superior to the Brazilian negro, and yet the African, though constantly masticating kola, can endure labor and fatigue which no Brazilian carrier can withstand, and where, for instance, it takes eight Brazilian negroes to carry a load with difficulty, four African porters carry it cheerfully, almost always, though ascending a hill, singing and chanting the whole time as they trudge along."

Experiments conducted in the French army demonstrated that kola was useful as an aid to endurance in the marching of troops, mountain climbing, and other muscular efforts. Experiments made at the same time by the Alpine Club of France showed that this remarkable drug enabled mountain climbers to ascend great heights with less muscular fatigue, less shortness of breath, and without experiencing hunger for hours at a time.

Recently experiments were made with this powerful stimulant in the American army by medical officers, and it was conclusively shown that kola is exceedingly valuable as an emergency ration, and as a stimulant to enable troops to undergo extraordinary fatigue.

As has been demonstrated by scientists, any preparation of kola is worthless unless prepared from the fresh nut. To F. K. Stearns & Co. of this city belongs the credit of having introduced the first palatable preparation made from the fresh article. This firm is intimately connected with the history of kola in this country. They were not only the first to investigate the drug, when it was originally brought to the attention of the scientific world, but they also were the first to import the fresh undried African nuts, and to introduce the drug to the medical fraternity of this continent.

All the experiments conducted in prominent army and medical circles were made with their preparations. And to-day, after a lapse of many years, they are still the only house in the United States that imports the fresh nuts. The firm has a number of agents in the Congo river districts who ship the nuts to London, whence they are reshipped to Detroit.

At the present time the firm imports about a ton of the fresh nuts every month, reserving a quantity out of each importation for experimental purposes.

"Kola Stearns," a palatable concentrated extract of the fresh drug, which has just been placed upon the market, is a powerful preparation; each minim of which represents a grain of the fresh drug. It has been the aim of the firm to produce a highly concentrated fluid extract of kola that would be easily portable, and this resulted in the production of "Kola Stearns." The new preparation will prove exceedingly valuable to pedestrians or bicyclists who propose to make long journeys.

In addition to "Kola Stearns," the firm manufactures two other preparations made from the fresh drug and named respectively "kolavin" and "kolabon." The first, as its name indicates, is a wine, and the last are delicious bon-bons of fresh kola.—*Detroit Journal.*

Balsam of Tolu as a Pill Excipient.

As an excipient for pills of guaiacol, terpinol, or eucalyptol, W. Kollo (*Pharmaceutical Post*) has used balsam of tolu to very good advantage. He proceeds by first triturating the substance prescribed with an equal quantity of powdered balsam of tolu with the addition of a few drops of dilute alcohol—4 drops of the latter to 1 gm. (15½ grn.) of balsam of tolu; and then adds, under constant rubbing, a small quantity of magnesium carbonate until the mass is of extract consistence. He then finishes the pill mass with the required amount of powdered licorice root. If sodium arsenate, codeine, or narcotic extracts are prescribed with the above, he first triturates them with the alcohol, before adding to the other ingredients; while quinine, iodoform, and other substances he adds after the mass is of extract consistence. Pills made in this way, he claims, do not allow of the exudation of the substances. —*Merck's Report.*

A most efficient sterilizing process is said to have been discovered by MM. Girard and Bordas, of Paris. The water is first treated with permanganate of calcium and then filtered through peroxide of manganese. The calcium permanganate—a salt easily manufactured—is, we are told, in the presence of organic matter and micro-organism, decomposed into oxygen, manganese oxide, and lime, and the organic matter and bacteria are thus destroyed. To further increase this oxidizing power, however, and at the same time to destroy the excess of calcium permanganate added to the water, this latter is filtered through a layer of manganese peroxide. The filtered water is perfectly limpid, and all pathogenic and other micro-organisms and organic matter are claimed to be entirely removed from it.—*Mag. Pharmacy.*

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Formulary.

AROMATIZED COD-LIVER OIL.

Pavesi recommends the following as an elegant formula for the administration of cod-liver oil :

Coffee, roasted and pulverized	2 parts.
Animal charcoal, fresh	1 part.
Cod-liver oil, fresh	40 parts.

Heat together in a water-bath for fifteen minutes, remove, and let stand for three days, and then filter. The oil thus treated is bright, clear, slightly yellow in color.—*National Druggist.*

SALICOL CREAM.

White wax	℥iij.
Spermaceti	℥iij.
Oil of almonds	℥xvj.
Distilled water	℥iij.
Glycerine	℥iij.
Salicylic acid	℥iiss.
Cumarin	gr. ss.
Tincture of musk	♏iij.
Otto of rose	♏ij.
Oil of orange-flower	♏ij.
" bergamot	♏ij.
" wintergreen	♏iv.
" ylang-ylang	♏j.

—*L'Union Pharm.*

SALVE AND PASTE PENCILS.

Unna, the deviser of novelties in dermatology, is the author of the idea of preparing certain unguents and pastes in pencil form, for convenience and cleanliness in handling. Moniss has made a slight improvement on Unna's formula, and offers the following instead :

Paraffin	5 parts.
Cacao butter	75 parts.

Melt together with gentle heat, and add ten parts of olive oil, previously rubbed up with the medicament in a mortar. Finally roll out in pencil form.—*National Druggist.*

FUMIGATING PAPER AND POWDER.

The following aromatic solution (*Pharm. Cent.*) is useful for perfuming writing paper, blotting paper, or pine wood sawdust for fumigating purposes. Either of these materials are macerated in the following tincture and dried :

R. Crushed benzoin,	
Tolu balsam āā	50 parts.
Styrax	10 parts.
Exhausted by 300 parts alcohol.	
Dissolve in the filtrate—	
Peru balsam	10 parts.
Oil of cinnamon	1 part.
Oil of lavender	1 part.

—*Theraupetic Review.*

MILK OF CUCUMBER WITHOUT SOAP.

The following is one of the best and simplest forms without soap :

Tincture of benzoin	1½ ozs.
Chloride of ammonium	3 drms.
Proof spirit	1 oz.
Glycerine	1½ ozs.
Fresh cucumber juice	5 ozs.
Rose-water to make	1 pint.

If you like, you can add an ounce of eau de Colonge, instead of the proof spirit.—*British and Colonial Druggist.*

MEDICATED BOUGIES.

Andry (*Monatshefte for Praktische Dermatologie*) proposes a new preparation for medicated bougies :

Cocoa butter	70 parts.
Paraffin	10 "
Olive oil	10 "
Medicament	2.5 to 15 "

The paraffin and cocoa butter are first melted together.

The remedy to be employed is then mixed with the olive oil and added to the melted paraffin and cocoa butter.

CREAMY EMULSION OF COD-LIVER OIL.

Professor Gay, of Montpellier, in a lecture on emulsions before his class in pharmacy (published in the *Repertoire de Pharmacie*), gives the following as the ideal creamy emulsion of cod-liver oil :

Cod-liver oil	500 gm.
Sugar, finely sifted	190 gm.
Gum arabic, pulverized	5 gm.
Tragacanth, pulverized	5 gm.
Infusion of roast coffee	200 gm.
Rum or kirsch-water	100 gm.

Mix the gums and sugar in a mortar; weigh (or measure) into the flask intended to contain the emulsion the oil and the infusion of coffee (the latter well cooled by standing in the ice-box for a few minutes), and mix by agitation. Pour slowly over the mixture of sugar and gum in the mortar sufficient of this mixture to make a semi-liquid plastic mass, agitating strongly all the time. Add the rum to the residue in the bottle, agitate together, and, finally, add and incorporate the mixture of sugar and gum. The product is an emulsion of the color of *café au lait*, in which the odor and taste of the oil is completely masked.

The rum or kirsch may be dispensed with by the use of an increased quantity of infusion of coffee and some essential oil, say, 20-30 drops of oil of bitter almond, or a mixture of bitter almond and oil of wintergreen, as the coffee alone does not entirely mask the taste of the fish oil.

EMULSION OF COD-LIVER OIL AND THE HYPOPHOSPHITES.

For making this emulsion, Professor Gay recommends the following process :

Cod-liver oil	500 gm.
Oil of bitter almond	20 drops.
Oil of wintergreen	20 drops.
Finely sifted sugar	190 gm.
Gum arabic in powder	5 gm.
Tragacanth in powder	5 gm.
Hypophosphite of calcium	10 gm.
Hypophosphite of sodium	5 gm.
Distilled water	285 gm.

Mix the essences with the oil, and proceed as before.—*National Druggist.*

PAINTS AND POLISHES.

The following formulæ are taken from a recent issue of the *Oil and Colorman's Journal* (Eng.) :

WATERPROOF PAINT.

An excellent waterproof paint may be obtained by melting 26 lbs. 8 oz. of resin in an iron pot, adding 2 lbs. 3 oz. sulphur, and 31 pints 2 gills of train oil ; when of liquid consistency add as much ochre, ground in oil, as may be required to give the proper consistency. Lay on with a brush as thinly as possible, giving a second coat a few days later.

FIREPROOF PAINT.

A good fireproof paint may be made as follows : 70 lbs. of zinc white, 39 lbs. of air-slaked lime, 50 lbs. of white lead, 10 lbs. of sulphate of zinc. Mix the zinc white and lime together and grind in elastic oil, then add 1 gallon 35° water glass, then the white lead and sulphate of zinc. Stir well. This will make white paint. If a shade is required, add the necessary color.

QUICK-DRYING PAINT.

A paint for wood, iron, and stone, which will dry in about two hours, is almost odorless, hardens quickly, and does not cling, may be made by pouring 22 lbs. 1 oz. of the best glue boiled in 1 cwt. 2 qrs. 8 lbs. 9 oz. of water into a solution of 4 lbs. 7 oz. of chromate of potash in 1 qr. 16 lbs. 2 oz, of water, then mixing thoroughly in 1 qr. 5 lbs. 2 oz. of linseed oil varnish, 16 drs. of glycerine, and 1 cwt. 3 qrs. 24 lbs. 11 oz. of color. When thoroughly mixed, strain through a hair sieve.

A NEW FURNITURE POLISH.

Delsol's furniture polish, patented in France, is composed of 325 grammes of carbonate of soda and 635 grammes of beeswax in five litres of water and twelve centilitres of methylated spirits. The carbonate of soda is first dissolved in the water, which is then heated, and at the spring of the boil the beeswax is added in small pieces, and the boiling is continued for about five minutes. The fire is then slackened and the liquid stirred with a wooden spoon, adding little by little a sufficient quantity of water to bring the total amount of polish made up to ten litres. After complete cooling the methylated spirits is added, and the polish is then the color of natural wax. This may be tinted as desired to act as a stain.—*Oils, Colors and Drysalteries.*

Camphor as a Germicide.

Camphor must come down from the high place as a germ-killer that it holds in the estimation of the public. Its essences, according to a French scientist who has been investigating the matter, have merely the advantage of being agreeable and of not harming dyed goods nor textile fibres ; but as a protection against the microbe and the moth it is a fraud. Many essential essences are much more potent. Taking the protective strength of camphor as 66, Miguel puts eucalyptus essence at 74, lavender at 81, mint at 93, and thyme and bitter almonds at 99.—*Oils, Colors and Drysalteries.*

Photographic Notes

Photo-Developing Recipe.

Editor Canadian Druggist:

Sir,—On page 188 of your August (1895) issue is given a photo-developing recipe. The "Pyro" formula is put very plain, but the "Alkali" I cannot understand. Do you mean to use "Liq. Ammon. .880" alone?

I cannot find "Sod. tribasic phosph."

To mix, how much of pyro and alkali do you use to ounce of water? That is, when mixing to make a second solution to put your plates in. You will greatly oblige by using enclosed stamped envelope.

H.L.K.

Philadelphia, Aug. 31st, 1895.

Ans.— The tri-sodium phosphate or basic phosphate ($N.A_3\ P.O_4$) is made by saturating one molecule of phosphoric acid with three molecules of sodium hydroxide. The following is also recommended as a developer:

A

Metol	gr. xl.
Hydroquinone	gr. xl.
Sodium sulphite	ʒij.
Water	ʒx.

B

Sodium carbonate	ʒv.
Water	ʒx.

For use mix equal parts of A and B.

MATT VARNISH.

This is generally used to coat the back of negatives for local intensification or "faking," and is then generally stained with some dye. A good formula is:

Sandarac	1 oz.
Mastic	96 grs.
Ether	10 ozs.
Benzole	q.s.

The more benzole is added the coarser the grain. A medium grain will be obtained with about 3½ ozs. For coloring this coralline rouge should be used, and as a fairly deep color is required because of the very thin film of varnish that can be applied, about 10 grs. per ounce should be used.

Lainer's formula is:

Sandarac	1 oz.
Ether	10 ozs.

Dissolve and filter and add

Toluol	3½ to 4 ozs.

—*Pharmaceutical Journal.*

TO STRIP FILM FROM ORDINARY PLATES.

Give negative two coats of a 2 per cent. collodion. The following formula yields good results:

Negative cotton	30 gr. (2 grm.)
Ether	1 oz. 6 drm. (50 c.c.)
Alcohol	1 oz. 6 drm. (50 c.c.)

Allow the first coat to dry before applying the second, and, when second coating has set, place immediately in cold water until greasiness has disappeared; then place in a bath of

Sodium fluoride (com)	5 drm. (20 grm.)
Water	5 oz. (160 c.c.)

When thoroughly saturated with this solution, which will take at least an hour, place without washing in

Water	7 oz. (196 c.c.)
Sulphuric acid	1 drm. (4 c.c.)

Rubber trays should be used for this and the fluoride bath. When film begins to loosen, lay a piece of writing paper or celluloid upon it as a support, and separate the two from the glass. After washing well under a tap, it can be transferred to a permanent support.

The following will answer the purpose: Coat a clean glass plate which has been rubbed with French chalk, and dusted with

Gelatine	2½ oz. (75 grm.)
Water	16 oz. (500 c.c.)
Glycerine	3 drm. (10 c.c.)

Filter before coating, through canton flannel, and avoid air bubbles. Coat on a levelling stand as thick as the plate will hold, allow to set and dry.—*American Journal of Photography.*

A GOOD INTENSIFIER.

Intensifiers are always a trouble to amateurs; in the first place, the majority contain perchloride of mercury, and this they cannot always obtain, and then they get into endless trouble with mercury intensifiers.

Solution No. 1.

Potassium bromide	
Copper sulphate, of each	1 oz.
Distilled water, to make	8 ozs.

Solution No. 2.

Silver nitrate	½ oz.
Distilled water, to make	8 ozs.

Directions for use.—Lay the well washed negative or bromide print in No. 1 solution till bleached right through, well wash, and then immerse in solution No. 2 till it has darkened right through, then wash, and place for a few minutes in a clean fixing bath, and again wash.

Of course, it may be objected that the use of the second fixing bath entails a lot of trouble, but really this is not much, and the results obtained are certainly permanent and good. For those who prefer a mercury bath—and if properly used such a bath is hard to beat—the now well-known potassio-silver-cyanide intensifier, commonly but erroneously called Monckhoven's, may be made.

Solution No. 1.

Mercury perchloride	100 grs.
Hydrochloric acid, pure	30 m.
Distilled water, to make	10 oz.

Solution No. 2.

Silver nitrate	200 grs.
Distilled water, to make	10 oz.
Potassium cyanide	q. s.

The proper method of making this solution is to dissolve the silver nitrate in 5 ozs. of the water and 200 grs. of cyanide in about 1 oz. of distilled water, place the silver solution in the bottle, and add the cyanide in quantities of about 1 drachm at a time, shaking thoroughly after each addition. A curdy white precipitate will be formed, and as more cyanide is added this will gradually redissolve; care must be taken that all the silver cyanide is not redissolved; some undissolved precipitate must be present, or else this solution will attack the image.

Directions for use.—The negative must be thoroughly freed from hypo, and should he either treated with anthion or with alum and acid solution, then immersed in No. 1 till bleached right through, then washed for twenty minutes in running water, and then immersed in No. 2 till blackened through, when it should be again well washed.

If the negative is left too long in No. 2 solution the details in the shadows will be eaten out.—*Pharmaceutical Journal.*

Powdered Zinc for Recovering Photo-Waste.

Dr. Stiebel, of Frankfort, uses zinc in powder to get back the gold from toning baths. This agent renders excellent service for precipitating neutral or alkaline solutions, even when they have a slightly acid reaction. The excess of acid is better neutralized by the addition of alkali, otherwise it would be necessary to greatly increase the quantity of zinc powder necessary to weaken this acid, which is not the case when the solution is neutral or alkaline. Dr. Stiebel took for his experiments a solution of hyposulphite of soda of 1.5, which contained exactly per litre 1.0988 gr. of silver and 0.4648 gr. of gold; 250 cubic centimetres of this solution was treated with 2.5 gr. of zinc powder, which had previously been strongly agitated in pure water. The mixture was stirred with care. At the end of ten minutes, when the liquid had regained all its limpidity, the filtered solution, treated with sulphide of potash, showed no longer any black coloration, because it no longer contained silver. In the precipitate, Dr. Stiebel found: 0.2715 gr. of silver=98.84 per cent. of the quantity calculated; 0.1150 gr. of gold=98.97 per cent. of the quantity calculated; that is to say, practically the entire quantity of the precious metal that had been used. The advantages that this method has over the sulphite of potash process are twofold. First, the gold and the silver are obtained by a single operation, then the solution of liver of sulphur is avoided, pernicious as well for the sense of smell as for the products kept in the laboratory. Zinc dust allows the operation to be more rapidly performed than with the metal in sheets. On the other hand, the gold and silver obtained, especially when they are in small quantities, are more regularly distributed through the pulverulent matter. It follows that in filtering there is less danger of loss. One condition of success is to use exact quantities, say five times the supposed quantity of the precious metal, then to only use a very weak acid solution, and to carefully distribute the zinc powder in the solution. To those who might make the objection that the method proposed by

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Any of these books will be furnished post free, on receipt of price, by the CANADIAN DRUGGIST, Toronto, Ontario.

Dr. Stiebel offers some danger by the possible presence of arsenic in the zinc powder, which might give rise to arsenical hydrogen, the author advises operating in the open air or in a laboratory having a good draught.—*Paris Photographe.*

Bromide Solutions.

Plain solutions of bromides are very often recommended for the purposes of suddenly arresting development, keeping back certain portions of the image by local application, and for stopping any continuing action of the developer.

After having frequently used them for these purposes we are inclined to think, first, it is necessary to be cautious in adopting these special measures, and, secondly, that there is another use to which these solutions may be put. We have not made any systematic experiments with regard to the action of these solutions, but have noticed when making an occasional use of them that they are very liable to affect the image in a way that is sometimes detrimental and occasionally advantageous.

They are no doubt effective in retarding any future action of the developer, but they must certainly have a reducing effect upon the image that is already out, or we should rather say they convert it into silver bromide, which afterwards dissolves in the fixing solution. A weak solution of a bromide applied to a partially developed negative reduces to a certain extent the density that has been already obtained, and a stronger solution not only reduces the density, but *destroys the finer detail.* It is therefore very advisable to use weak solutions only on such images.

If applied after development is complete, but before fixation, the same effects can be observed in a greater or lesser degree, according to the strength of the solution, and having noticed this we have, with a fair amount of success, attempted to reduce over-developed, or to clear fogged, negatives by soaking them in a solution of a bromide before fixing. The details are at this stage much stronger than they are when incompletely developed, and are therefore less likely to be seriously damaged, though they are affected by a very strong solution.

Some systematic experiments with solutions of the different bromides, varying in strength, made upon images produced by various developers, might possibly lead to useful results. It will probably be found that the effect upon an amidol-developed image is much greater than that produced upon one developed by pyro, but this is only a conjecture. If fog can be reduced to a minimum by *prolonged soaking in a very dilute solution* without damage to the detail, a great deal will be gained. We have frequently cleared off surface fog in a similar manner, but as we generally did it in more or less of a hurry, and used a strong solution, some of the detail went too. It is hardly safe to attempt anything in this way until development is complete, as the bromide appears to destroy the undeveloped latent image very readily, so that unless we are dealing with a bad case of over-exposure the remedy produces worse results than the disease.

As a rule we should advise that a plain solution of bromide should not be applied to a correctly or slightly under-exposed image, under any circumstances, excepting for the purpose of reducing over-development.

The action of the bromide upon the image is shown by the gradual formation of a white deposit; to what extent the action will go on we do not know, neither can we tell why it only takes place before fixation and not after.—*Photo. Notes*

Pharmacy Abroad.

Italian Pharmaceutical Conference.—Mr. Pietro Farini, of the Farmacia Sempreviva, Ferrara, has issued a circular to Italian pharmacists, proposing that a national pharmaceutical congress should be held in Ferrara, the objects being the reunion of pharmacists, the discussion of scientific topics and of the various laws and regulations which affect the practice of pharmacy in Italy.

A Pharmacy Bill in Natal.—The Natal Parliament has before it a Bill drafted by the Pharmaceutical Society of that colony providing for the due qualification of medical men and pharmacists, organizing a medical council and a pharmacy board, restricting the sales of poisons to registered persons, and prescribing certain precautions when such substances are sold. Several members objected strongly to the monopoly which the Bill seemed to create, and the Prime Minister admitted there was much force in the arguments of those who opposed the Bill. It was intimated that poisons used by farmers, and sheep-dips especially, should be exempted from the Bill, and, on the understanding that in this and in certain other respects it should be amended, the Bill was read a second time.—*Chemist and Druggist.*

A New Russian Pharmacy Law.—A new pharmacy law is about to be enacted in Russia. The chemists of that country do not like it at all; but then it is, with them, mainly a case of "Do as you are told, and don't argue." The two principal innovations are the proposed limitation of pharmacy licenses in proportion to the number of population and of prescriptions dispensed in a given area, and the right to be conferred upon district councils, national institutions, and benevolent societies approved by government, of establishing chemists' shops of their own, open to the public. It is even intended to enact that such bodies or societies shall be given the preference over private applicants in cases where there is competition for the license. The Russian pharmaceutical societies are doing what they can to oppose the projected reforms. They have drawn the attention of the Medical Council to the objectionable character of the competition to which it is intended to expose them. With regard to the limitation of the number of shops, they suggest that the following standard should be established: In large cities one pharmacy for every 20,000 inhabitants or 20,000 prescriptions; in towns of from 5,000 to 30,000 population one pharmacy for every 7,000 inhabitants or 6,000 prescriptions; and in smaller places one pharmacy for every 5,000 inhabitants or 4,000 prescriptions.

Dearth of Foreign Medicines in China.—Acting-Consul Brady, in his report on the trade of Ichang, China, last year, makes the following remarks, by which English dealers in drugs ought to profit: Foreign medicines and worm tablets figure in the import table to the value of 15,774 taels (£2,500), but, unfortunately, no details are given. Foreign drugs are much appreciated by natives, especially quinine, which seems to be universally known, but there are few places in the interior where they can be purchased. Local chemists in Hong-Kong and Shanghai have their agents, it is true, in some of the larger cities, but the quantities they dispense, I am told, are too large for the requirements of the ordinary native, to whom a disbursement of 40 cash (say 1d.) is often considerable. I consider a large business might be done by any enterprising wholesale firm who would make up medicines in an attractive form, small quantities, with full and concise directions in Chinese on the wrapper. Worm tablets are exposed for sale on the street stalls of almost all the cities in the eighteen provinces, besides being hawked about the country by pedlars, and why should not other medicines be made as popular? Quinine is an article for which travellers are continually being besieged by Chinese, who consider it a panacea for all ills, and the demand for it would soon increase if it were placed on the market in a cheap form, say 1d or 1½d. the dose, either with or without the necessary salts, for the relief of malarial fever. There are many other simple remedies which suggest themselves, such as sulphur ointment, for itch, which is virtually unknown amongst the Chinese for this complaint; boracic acid, for ophthalmia, by the use of which half the cases of impaired sight might be avoided; santonine, for intestinal complaints; iodine, for ringworm; zinc ointment, for sores; and a good purgative pill, as well as an anti-diarrhœa medicine, all of which are amongst the cheapest of drugs in the British Pharmacopœia. Once fairly placed on the market, I am convinced a ready demand would spring up for these articles, and the relief they would afford to thousands would be incalculable, besides bringing in no small profits to the enterprising foreigner who first succeeded in establishing a reputation for them. The essential conditions of success, however, are that the medi-

cines should be disposed of in small quantities, at the cheapest possible rates, and that each packet should be accompanied by explicit directions as to the dose to be taken. The commercial traveller is an unknown quantity in China, and a Chinaman has to go in search of his commodities instead of their going in search of him. Everywhere in shops one sees the same class of foreign goods, the same miscellaneous assortment of odds and ends, but never anything of a modern or up-to-date nature. This is simply the result of ignorance on the part of the Chinese trader; he does not know of them, and, if he did, he would not know, in all probability, where to go to procure them. Judicious advertising might improve matters, but what are really needed are local agencies, where samples of all kinds of goods might be inspected without difficulty or compulsion to purchase.—*British and Colonial Druggist.*

Customs Decisions.

Amongst the recent decisions approved by the Controller of Customs we find the following:

Surgical splints, all kinds, 15½ per cent.

Isinglass, 25 per cent.

Sunflower seed, in bulk or large parcels, 10 per cent.; in small papers or parcels, 25 per cent.

Rose water and orange water, non-alcoholic, 20 per cent.

Advertising rules and yard sticks, 35 per cent.

Artificial essential oil of wintergreen and sassafras, 10 per cent.

Two or more oils blended, 10 per cent.

Packages containing lamp chimneys, dutiable at same rate as contents, viz., 30 per cent.

Douches rubber, 25 per cent.

Pessaries, 25 per cent.

Medicinal wines (so-called), viz., Amer Kina, Camperdon, Armour's nutrient wine of beef extract, Vincarnis wine, Vino du Saludx, vin de vial, vin de barbier, vin de Chevrier, vin danduron, vin de rancio, vin St. Michael, vin St. Raphael, vin Mariana, Esprit de Comemille, and others of like nature, $2.25 per gallon, and 30 per cent.

Ricinin, the cathartic principle of castor oil, can be extracted from castor cake by boiling with water, straining, evaporating to an extract, and exhausting with alcohol. The alcoholic solution leaves on evaporation a resinous residue in which crystals of ricinin can be seen.

Argonin is a new silver compound prepared by precipitating a solution of silver nitrate and casein-soda with alcohol. It is described as a fine white powder which dissolves in water with a neutral reaction. The silver in the compound is not precipitated by chlorides, ammonium sulphide, etc.

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the *special consideration* of the Business Notices.

The Britannia scribbler, shown by Buntin, Gillies & Co., Hamilton, is embellished with a cut of the Prince of Wales' celebrated yacht. It makes a handsome cover.

Buntin, Gillies & Co., Hamilton, Ont. are making a big push for business in school supplies. Their new scribbler covers are beauties, and the quality of stock is first-class. The dealer who has these on his counter when school opens will stand well with the pupils.

SHOW CASES.—If you want a show case of any description, made of best materials and good workmanship, write the Montreal Show Case Co., mentioning this journal. See advertisement.

LICORICE.—When you order licorice ask for "Y. & S." brand. This is the advice given by the celebrated makers, Messrs. Young & Smylie, of Brooklyn, N.Y., and if you follow it, you cannot go astray.

ODOROMO.—This is the name of a new dentifrice, only recently put on the market. It is one of the handsomest packages we have seen, and the purity and excellence of the powder is certified to by a competent authority. See advertisement.

LISTER SURGICAL CO.—The Lister Surgical Co. are removing their plant from Kearney, N.J., to New Brunswick, N.J., and are rapidly putting it in shape to push their business with greater facilities than heretofore. A larger amount of capital has been secured, and they are also able to obtain in their new location skilled labor which has been trained in the manufacture of their special products.

TYPEWRITER.—The attention of wholesale druggists, patent medicine manufacturers, druggists, and all others who find it necessary to use a typewriter, is directed to the advertisement on page 206a of this issue. The typewriter there mentioned is one that is giving universal satisfaction, and is being used in Government and departmental offices. Write for prices, etc., and mention THE CANADIAN DRUGGIST.

FRUIT TABLETS.—Fine confectionery has now become a staple line in the stock of all first-class druggists, the more so since the public have become aware of the fact that the *best* goods may be obtained in their drug store. We have pleasure in presenting to the trade the announcement of G. J. Hamilton & Sons, who manufacture a line of strictly first-class fruit tablets, prepared from the best English formula. They have a list of 48 flavors, embracing all the well-known names, as well as many new ones. The goods are handsomely put up, as shown in their advertisement on page 208a of this issue. They also manufacture the "Arctic Cough Drops," a popular line, and put up in lithographed tins, flint glass jars, and in packages to retail at 5 cents each. Write for quotations and list of flavors.

Optical Goods.

The Montreal Optical Co. has opened a branch in this city at No. 60 Yonge street, where a full line of optical goods, etc., will be kept. This will prove a great convenience to dealers in the west. See advertisement.

At the Toronto Exhibition.

Amongst the exhibits at the Toronto Industrial Exhibition just closed, there were a number of peculiar interest to the drug trade.

The Truro Condensed Milk and Canning Co. had an exhibit of the "Reindeer Brand" goods, comprising condensed milk, evaporated cream, condensed coffee, and condensed cocoa. These preparations are highly recommended by a number of leading physicians, and analysis has proved them to be of superior quality.

John Taylor & Company have a show case filled with perfumery—an exceedingly neat and tasty display. In addition to their choice lines of well-known odors, they show an original copper of otto of rose and a sample package of Court's orange pomade. A perfume fountain, giving forth a stream of a delightful lavender water, prepared by this firm from pure Mitchin lavender, was a source of attraction to many of the fair sex.

The K.D.C. Company had a display of their well-known remedy, and bestowed literature *ad libitum* on the passers-by.

The Canada Paint Company showed a large assortment of dry colors, paints, oils, colors in oil, gums, etc. They report a very gratifying business for the year. Their output of Paris green in the past season exceeded three hundred and fifty tons.

The Smith Manufacturing Company, of Galt, Ontario, exhibited a complete line of their popular American silver truss. This truss is the invention of Mr. A. G. Smith, of Toronto, and is made in one piece of nickel silver. It is light and elegant, and costs less than many inferior trusses. The silver truss, from its adaptability, peculiarity of shape, and mode of application, adjusts itself to every posture of the body without displacement, and is worn with comfort. Some of its advantages seem to be its simplicity, durability, coolness, and capacity of withstanding

- - - DRUGGISTS - - -

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CANADIAN DRUGGIST PRICES CURRENT

Corrected to September 10th, 1895.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal	$4 37	$4 65
Methyl	1 90	2 00
ALLSPICE, lb	13	15
Powdered, lb	15	17
ALOIN, oz	40	45
ANODYNE, Hoffman's bot., lbs	50	55
ARROWROOT, Bermuda, lb	50	55
St. Vincent, lb	15	18
BALSAM, Fir, lb	40	45
Copaiba, lb	65	75
Peru, lb	3 75	4 00
Tolu, can or less, lb	65	75
BARK, Barberry, lb	22	25
Bayberry, lb	15	18
Buckthorn, lb	15	17
Canella, lb	15	17
Cascara, Sagrada	25	30
Cascarilla, select, lb	18	20
Cassia, in mats, lb	18	20
Cinchona, red, lb	60	65
Powdered, lb	65	70
Yellow, lb	35	40
Pale, lb	40	45
Elm, selected, lb	18	20
Ground, lb	17	20
Powdered, lb	20	28
Hemlock, crushed, lb	18	20
Oak, white, crushed lb	15	17
Orange peel, bitter, lb	15	16
Prickly ash, lb	35	40
Sassafras, lb	15	16
Soap (quillaya), lb	13	15
Wild cherry, lb	13	15
BEANS, Calabar, lb	45	50
Tonka, lb	1 50	2 75
Vanilla, lb	6 00	8 50
BERRIES, Cubeb, sifted, lb	30	35
powdered, lb	35	40
Juniper, lb	7	10
Ground, lb	12	14
Prickly ash, lb	40	45
BUDS, Balm of Gilead, lb	55	60
Cassia, lb	25	30
BUTTER, Cacao, lb	75	80
CAMPHOR, lb	70	75
CANTHARIDES, Russian, lb	1 40	1 50
Powdered, lb	1 50	1 60
CAPSICUM, lb	25	30
Powdered, lb	$ 30	35
CARBON, Bisulphide, lb	17	18
CARMINE, No. 40, oz	40	50
CASTOR, Fibre, lb	20 00	20 00
CHALK, French, powdered, lb	10	12
Precip., see Calcium, lb	10	12
Prepared, lb	5	6
CHARCOAL, Animal, powd., lb	4	5
Willow, powdered, lb	20	25
CLOVE, lb	16	17
Powdered, lb	17	18
COCHINEAL, S.G., lb	40	45
COLLODION, lb	75	80
Cantharidal, lb	2 50	2 75
CONFECTION, Senna, lb	40	45
Creosote, Wood, lb	2 00	2 50
CUTTLEFISH BONE, lb	25	30
DEXTRINE, lb	10	12
DOVER'S POWDER, lb	1 50	1 60
ERGOT, Spanish, lb	75	80
Powdered, lb	90	1 00
Ergotin, Keith's, oz	2 00	2 10
EXTRACT, Logwood, bulk, lb	13	14
Pounds, lb	14	17
FLOWERS, Arnica, lb	15	20
Calendula, lb	55	60
Chamomile, Roman, lb	30	35
German, lb	40	45
Elder, lb	20	22
Lavender, lb	12	15
Rose, red, French, lb	1 60	2 00
Rosemary, lb	25	30
Saffron, American, lb	65	70
Spanish, Val'a, oz	1 00	1 25
GELATINE, Cooper's, lb	75	80
French, white, lb	35	40
GLYCERINE, lb	17	18
GUARANA	3 00	3 25
Powdered, lb	3 25	3 50
GUM ALOES, Cape, lb	18	20
Barbadoes, lb	30	50
Socotrine, lb	65	70
Asafœtida, lb	40	45
Arabic, 1st, lb	65	70
Powdered, lb	75	85
Sifted sorts, lb	40	45
Sorts, lb	25	30
Benzoin, lb	50	1 00
Catechu, Black, lb	9	20
Gamboge, powdered, lb	1 20	1 25
Guaiac, lb	50	1 00
Powdered, lb	70	75
Kino, true, lb	2 00	2 25
Myrrh, lb	$ 45	$ 48
Powdered, lb	55	60
Opium, lb	3 50	3 75
Powdered, lb	5 25	5 50
Scammony, pure Resin, lb	12 50	13 00
Shellac, lb	45	48
Bleached, lb	45	50
Spruce, true, lb	30	35
Tragacanth, flake, 1st, lb	75	80
Powdered, lb	1 00	1 10
Sorts, lb	45	65
Thus, lb	8	10
HERB, Althea, lb	27	30
Bitterwort, lb	36	40
Burdock, lb	16	18
Boneset, ozs, lb	15	17
Catnip, ozs, lb	17	20
Chiretta, lb	25	30
Coltsfoot, lb	20	38
Feverfew, ozs, lb	53	55
Grindelia robusta, lb	45	50
Horehound, ozs., lb	18	20
Jaborandi, lb	45	50
Lemon Balm, lb	38	40
Liverwort, German, lb	38	40
Lobelia, ozs, lb	15	20
Motherwort, ozs., lb	20	22
Mullein, German, lb	17	20
Pennyroyal, ozs., lb	18	20
Peppermint, ozs., lb	21	22
Rue, ozs., lb	30	35
Sage, ozs., lb	18	20
Spearmint, lb	21	25
Thyme, ozs., lb	18	20
Tansy, ozs., lb	15	18
Wormwood, oz	20	22
Yerba Santa, lb	38	44
HONEY, lb	13	15
HOPS, fresh, lb	20	25
INDIGO, Madras, lb	75	80
INSECT POWDER, lb	25	28
ISINGLASS, Brazil, lb	2 00	2 10
Russian, true, lb	6 00	6 50
LEAF, Aconite, lb	25	30
Bay, lb	18	20
Belladonna, lb	25	30
Buchu, long, lb	50	55
Short, lb	20	22
Coca, lb	35	40
Digitalis, lb	15	20
Eucalyptus, lb	18	20
Hyoscyamus	20	25
Matico, lb	70	75

Senna, Alexandria, lb	$ 25	$ 30
Tinnevelly, lb	15	25
Stramonium, lb	20	25
Uva Ursi, lb	15	18
LEECHES, Swedish, doz	1 00	1 10
LICORICE, Solazzi	45	50
Pignatelli	35	40
Grasso	30	35
Y & S—Sticks, 6 to 1 lb., per lb.	27	30
" Purity, 100 sticks in box	75	75
" Purity, 200 sticks in box	1 50	1 50
" Acme Pellets, 5 lb. tins	2 00	2 00
" Lozenges, 5 lb. tins	1 50	1 75
" Tar, Licorice, and Tolu, 5 lb. tins	2 00	2 00
LUPULIN, oz	30	35
LYCOPODIUM, lb	70	80
MACE, lb	1 20	1 25
MANNA, lb	1 60	1 75
Moss, Iceland, lb	9	10
Irish, lb	9	10
MUSK, Tonquin, oz	46 00	50 00
NUTGALLS, lb	21	25
Powdered, lb	25	30
NUTMEGS, lb	1 00	1 10
NUX VOMICA, lb	10	12
Powdered, lb	25	27
OAKUM, lb	12	15
OINTMENT, Merc., lb. ½ and ½	70	75
Citrine, lb	45	50
PARALDEHYDE, oz	20	22
PEPPER, black, lb	12	13
Powdered, lb	15	16
PITCH, black, lb	3	4
Bergundy, true, lb	10	12
PLASTER, Calcined, bbl. cash	2 25	3 25
Adhesive, yd	12	13
Belladonna, lb	65	70
Galbanum Comp., lb	80	85
Lead, lb	25	30
POPPY HEADS, per 100	1 00	1 10
ROSIN, Common, lb	2½	3
White, lb	3½	4
RESORCIN, white, oz	25	30
ROCHELLE SALT, lb	25	28
ROOT, Aconite, lb	22	25
Althea, cut, lb	30	35
Belladonna, lb	25	30
Blood, lb	15	16
Bitter, lb	27	30
Blackberry, lb	15	18
Burdock, crushed, lb	18	20
Calamus, sliced, white, lb	20	25
Canada Snake, lb	30	35
Cohosh, black, lb	15	20
Colchicum, lb	40	45
Columbo, lb	20	22
Powdered, lb	25	30
Coltsfoot, lb	38	40
Comfrey, crushed, lb	20	25
Curcuma, powdered, lb	13	14
Dandelion, lb	15	18
Elecampane, lb	15	20
Galangal, lb	15	18
Gelsemium, lb	22	25
Gentian or Genitan, lb	9	10
Ground, lb	10	12
Powdered, lb	13	15
Ginger, African, lb	18	20
Po., lb	20	22
Jamaica, blchd., lb	27	30
Po., lb	30	35
Ginseng, lb	4 50	4 75
Golden Seal, lb	75	80
Gold Thread, lb	90	95
Hellebore, white, powd., lb	12	15
Indian Hemp	18	20
Ipecac, lb	1 30	1 50
Powdered, lb	1 60	1 70
Jalap, lb	55	60
Powdered, lb	60	65
Kava Kava, lb	40	90
Licorice, lb	12	15
Powdered, lb	13	15
Mandrake, lb	13	18
Masterwort, lb	16	40
Orris, Florentine, lb	30	35
Powdered, lb	40	45
Pareira Brava, true, lb	40	45
Pink, lb	40	45
Parsley, lb	30	35
Pleurisy, lb	20	25
Poke, lb	15	18
Queen of the Meadow, lb	$ 18	$ 20
Rhatany, lb	20	30
Rhubarb, lb	75	2 50
Sarsaparilla, Hond, lb	40	45
Cut, lb	50	55
Senega, lb	55	65
Squill, lb	13	15
Stillingia, lb	22	25
Powdered, lb	25	27
Unicorn, lb	38	40
Valerian, English, lb. true	20	25
Virginia, Snake, lb	40	45
Yellow Dock, lb	15	18
RUM, Bay, gal	2 50	2 75
Essence, lb	3 00	3 25
SACCHARIN, oz	1 25	1 50
SEED, Anise, Italian, sifted, lb	13	15
Star, lb	35	40
Burdock, lb	30	35
Canary, bag or less, lb	5	6
Caraway, lb	10	13
Cardamom, lb	1 25	1 50
Celery	30	35
Colchicum	50	60
Coriander, lb	10	12
Cumin, lb	15	20
Fennel, lb	15	17
Fenugreek, powdered, lb	7	9
Flax, cleaned, lb	3½	4
Ground, lb	4	5
Hemp, lb	5	6
Mustard, white, lb	11	12
Powdered, lb	15	20
Pumpkin	25	30
Quince, lb	65	70
Rape, lb	8	9
Strophanthus, oz	50	55
Worm, lb	22	25
SEIDLITZ MIXTURE, lb	25	30
SOAP, Castile, Mottled, pure, lb	10	12
White, Conti's, lb	15	16
Powdered, lb	25	35
Green (Sapo Viridis), lb	15	25
SPERMACETI, lb	55	60
TURPENTINE, Chian, oz	75	80
Venice, lb	10	12
WAX, White, lb	50	75
Yellow	40	45
WOOD, Guaiac, rasped	5	6
Quassia chips, lb	10	12
Red Saunders, ground, lb	5	6
Santal, ground, lb	5	6

CHEMICALS.

ACID, Acetic, lb	12	13
Glacial, lb	45	50
Benzoic, English, oz	20	25
German, oz	10	12
Boracic, lb	13	14
Carbolic Crystals, lb	25	30
Calvert's No. 1, lb	2 10	2 15
No. 2, lb	1 35	1 40
Citric, lb	45	50
Gallic, oz	10	12
Hydrobromic, diluted, lb	30	35
Hydrocyanic, diluted, oz. bottles doz	1 50	1 60
Lactic, concentrated, oz	22	25
Muriatic, lb	3	5
Chem, pure, lb	18	20
Nitric, lb	10½	13
Chem. pure, lb	25	30
Oleic, purified, lb	75	80
Oxalic, lb	12	13
Phosphoric, glacial, lb	1 00	1 10
Dilute, lb	13	17
Pyrogallic, oz	35	38
Salicylic, white, lb	1 00	1 10
Sulphuric, carboy, lb	2½	2¾
Bottles, lb	5	6
Chem. pure, lb	18	20
Tannic, lb	80	85
Tartaric, powdered, lb	30	32
ACETANILID, lb	80	85
ACONITINE, grain	4	5
ALUM, cryst, lb	1¾	3
Powdered, lb	3	4
AMMONIA, Liquor, lb., .880	8½	10
AMMONIUM, Bromide, lb	80	85
Carbonate, lb	14	15
Iodide, oz	35	40
Nitrate, crystals, lb	40	45
Muriate, lb	12	16
Valerianate, oz	$ 55	$ 60
AMYL, Nitrite, oz	16	18
ANTINERVIN, oz	85	00
ANTIKAMNIA	1 25	1 30
ANTIPYRIN, oz	1 00	1 10
ARISTOL, oz	1 85	2 00
ARSENIC, Donovan's sol., lb	25	30
Fowler's sol., lb	10	13
Iodide, oz	50	55
White, lb	6	7
ATROPINE, Sulp. in ⅛ ozs. 80c., oz	6 00	6 25
BISMUTH, Ammonia-citrate, oz	35	40
Iodide, oz	50	55
Salicylate, oz	25	30
Subcarbonate, lb	2 25	2 40
Subnitrate, lb	1 75	1 80
BORAX, lb	7	8
Powdered, lb	8	9
BROMINE, oz	8	13
CADMIUM, Bromide, oz	20	25
Iodide, oz	45	50
CAFFEINE, oz	60	65
Citrate, oz	60	65
CALCIUM, Hypophosphite, lb	1 50	1 60
Iodide, oz	95	1 00
Phosphate, precip., lb	35	38
Sulphide, oz	5	6
CERIUM, Oxalate, oz	10	12
CHINOIDINE, oz	15	18
CHLORAL, Hydrate, lb	1 25	1 30
Croton, oz	75	80
CHLOROFORM, lb	60	1 90
CINCHONINE, sulphate, oz	25	30
CINCHONIDINE, Sulph., oz	15	20
COCAINE, Mur., oz	6 50	8 00
CODEIA, ¼ oz	80	90
COLLODION, lb	65	70
COPPER, Sulph., (Blue Vitriol) lb.	6	7
Iodide, oz	65	70
COPPERAS, lb	1	3
DIURETIN, oz	1 60	1 65
ETHER, Acetic, lb	75	80
Sulphuric, lb	40	50
EXALGINE, oz	1 00	1 10
HYOSCYAMINE, Sulp., crystals, gr.	25	30
IODINE, lb	4 75	5 50
IODOFORM, lb	6 00	7 00
IODOL, oz	1 40	1 50
IRON, by Hydrogen	80	85
Carbonate, Precip., lb	15	16
Sacch., lb	30	35
Chloride, lb	45	55
Sol., lb	13	16
Citrate, U.S.P., lb	90	1 00
And Ammon., lb	70	75
And Quinine, lb	1 50	3 00
Quin. and Stry., oz	18	30
And Strychnine, oz	13	15
Dialyzed, Solution, lb	50	55
Ferrocyanide, lb	55	60
Hypophosphites, oz	25	30
Iodide, oz	40	45
Syrup, lb	40	45
Lactate, oz	5	6
Pernitrate, solution, lb	15	16
Phosphate scales, lb	1 25	1 30
Sulphate, pure, lb	7	9
Exsiccated, lb	8	10
And Potass. Tartrate, lb	80	85
And Ammon Tartrate, lb	80	85
LEAD, Acetate, white, lb	13	15
Carbonate, lb	7	8
Iodide, oz	35	40
Red, lb	7	9
LIME, Chlorinated, bulk, lb	4	5
In pakages, lb	6	7
LITHIUM, Bromide, oz	30	35
Carbonate, oz	30	35
Citrate, oz	25	30
Iodide, oz	50	55
Salicate, oz	35	40
MAGNESIUM, Calc., lb	55	60
Carbonate, lb	18	20
Citrate, gran., lb	35	40
Sulph. (Epsom salt), lb	1¾	3
MANGANESE, Black Oxide, lb	5	7
MENTHOL, oz	55	66
MERCURY, lb	75	80
Ammon (White Precip.)	1 25	1 30
Chloride, Corrosive, lb	1 00	1 10
Calomel, lb	1 00	1 10
With Chalk, lb	60	65

the results of moisture and perspiration. The hips of the patient are free, and the pressure force imitates very closely the retention of a hernia by the hand of the patient, upwards and obliquely backwards.

Books and Magazines.

"Monograph on Fluid Extracts, Solid Extracts, and Oleoresins." By Joseph Harrop, Ph.G. The work is divided into six parts, treating of the materials used, processes, preparation of fluid and solid extracts and oleoresins, and a chapter on inspissated juices, liquid and solid extracts of the B.P., repercolation, etc. The work is a thoroughly practical one, the result of actual experience, and will, we believe, meet with the same commendation as did the author's former treatise on "Flavoring Extracts." Published by Harrop & Co., Columbus, Ohio. 200 pages, bound in cloth, price $2.00.

Among the well-known writers for young people who will contribute to the first number of *Frank Leslie's Pleasant Hours for Boys and Girls*, which will appear September 25, are Oliver Optic, Edward S. Ellis, Jeannette H. Walworth, Rebecca Harding Davis, and Felix L. Oswald. Many attractive and novel features have been secured for the new magazine. The October number, first in the new form, new cover, and new character, will be published September 25. Price 10 cents. $1.00 a year.

In the September number of the *Delineator*, which is called the Autumn Announcement Number, the display of fashions for the coming season is exceptionally large, and the styles are handsome enough to suit the most exacting taste. The issue is also notable for the variety and quality of the reading matter. Subscription price of the *Delineator* is $1.00 per year, or 15 cents per single copy. Address all communications to the Delineator Publishing Co. of Toronto, Ltd., 33 Richmond street west, Toronto, Ont.

Frank Leslie's Popular Monthly for September is out in a new dress of type, which, with the artistic cover and the broad, handsome pages, gives the finest possible setting to its numerous pictorial and literary features. These latter are always of a timely and seasonable nature, and in the current number include a fascinating paper on "Mishaps and Mysteries of the Sea," by Mary Titcomb, reviewing the world's great marine disasters, and superbly illustrated with drawings by Overend, Davidson, Schell, Burns, and Montbard. The September number of *Frank Leslie's Popular Monthly* contains the opening instalment of a new serial story, "The Magnet Stone," by Frances Swann Williams, which bids fair to prove the best work yet offered by this rising young Virginian novelist.

Fiction and travel are the strong points of the September *Cosmopolitan*, which, by the way, illustrates better than any previous number the perfection of its plant for printing a magazine of the highest class. Conan Doyle, H. H. Boyesen, and Clark Russell are among the story-tellers. "The Realm of the Wonderful" is descriptive of the strange forms of life discovered by science in the ocean's depths, and is superbly illustrated in a surprising and marvellous way by the author, who is a member of the Smithsonian staff. An article on Cuba is timely. Without bothering the reader with unnecessary description of the famous yachts now so much talked of, the *Cosmopolitan* presents four full-page illustrations showing these noted boats. And it may be said that no more beautifully illustrated number of the *Cosmopolitan* has ever been given to the public.

"Compulsion in Child Training" is the subject which the Rev. Charles H. Parkhurst, D.D., discusses wisely and well in the September *Ladies' Home Journal*. His article is ably supplemented by Edward W. Bok's excellent editorial on "Our Schools and Our Teachers." "The Woman Who Paints Cats" is the striking title of a full page devoted to Madame Henriette Ronner, the celebrated cat painter, several copies of her most celebrated pictures being given. "The Men who Write our Comic Operas" are represented by portraits and sketches of "The Composer of 'Wang,'" "The Composer of 'Robin Hood,'" and "The Composer of 'Princess Bonnie.'" Graceful in theme and melodious in construction is Mr. Robert Coverley's song, "Love's Reflections," written exclusively for this issue of the *Journal*. Grace Greenwood writes of "The Man Who Most Influenced Me," Amelia E. Barr of "Conversation at the Dinner Table," and Frank R. Stockton's "Love Before Breakfast" comes to a happy conclusion. Altogether this attractive issue, which goes out with a cover especially designed by Mr. C. D. Gibson, is worth ten times its price of ten cents. *The Ladies' Home Journal* is published by the Curtis Publishing Company, of Philadelphia, for ten cents per number and one dollar per year.

Larger and better than ever, *Current History* for the second quarter of 1895 has appeared. In every respect its standard of carefulness of compilation, attractiveness of treatment, editorial impartiality, and breadth of view, is fully maintained. The present number begins with an article on "Argon and its Discoverers," giving in full the history of the investigations of Lord Rayleigh and Professor Ramsay, a summary of all that is yet known of the new constituent of the atmosphere, illustrated with portraits of the discoverers, drawings of apparatus, and photographs of the spectra of argon. The Japan-China war is traced to its conclusion, with the lessons to be drawn from it, and an intelligent outlook into the future in the Orient. The Manitoba school question is clearly presented in its legal bearings. The fall of the Rosebery Ministry, the formation of a new cabinet, and the general elections in Great Britain are ably reviewed, also the opening of the Kaiser-Wilhelm canal; cabinet crises in Austria-Hungary; relief of Chitral in British India; the latest scientific inventions and discoveries. The frontispiece is a portrait of Lord Rayleigh; while portraits of Professor Ramsay and thirty-six other celebrities also appear. The volumes bound each year form by far the cheapest and handiest, and, in many respects, the best annual published. Buffalo, N.Y.: Garretson, Cox & Co. $1.50 a year; single numbers, 40 cents; sample copy, 10 cents; specimen pages free.

Sulfinidum Absolutum is the name given to saccharin absolutely free from any para acid.

The most persistent reader of an advertisement is the man who pays for it. —*National Printer-Journalist.*

To discourage loafing in the drug store, don't do any loafing yourself. If your store is open for business, keep busy.

Don't try to build yourself up by pulling your competitors down. It is wrong in principle and in practice. If you do, the rebound is sure to come.

Different soils are adapted to the growth of different plants; so are different advertising mediums adapted to the advancement of different businesses.

To Bronze Leather.—Dissolve 1 part of tannin in 20 parts of alcohol, and in this stir the bronze powder. Apply with a sponge or a brush.—*Pharm. Zeit.*

Volatility of Mercuric Chloride. —It is stated by Arctowski (*Jour. Chem. Soc.*) that mercuric chloride is more volatile at ordinary temperatures than generally supposed.

Alcohol of Crystallization. — French chemists have succeeded in obtaining crystals of strontium bromide and calcium bromide, in which alcohol takes the place of water.

Ferments in the Blood.—According to Rohmann blood-serum contains diastase and glucose, ferments which convert starch into dextrin, maltose, and dextrose. These ferments also occur in malt.

Pending Scarcity of Olive Oil.— The production of olive oil in Italy for the present year has fallen below that of last by about 600,000 hectolitres. In Spain, olive oil is also very scarce. There will be only sufficient for home consumption.

Methylene Blue as an Analgesic. —Liniosin recommends (*Berlin Klin. Wochen.*) the use of methylene blue as an analgesic suggested by Ehrlich, as especially beneficial in the treatment of sciatica. Relief is usually obtained after several doses, the dose being 0.3.

Iodide, Proto, oz	$ 35	$ 40
Bin., oz	25	30
Oxide, Red, lb	1 15	1 20
Pill (Blue Mass), lb	70	75
MILK SUGAR, powdered, lb	30	35
MORPHINE, Acetate, oz	1 75	1 80
Muriate, oz	1 75	1 80
Sulphate, oz	1 75	1 80
PEPSIN, Saccharated, oz	35	40
PHENACETINE, oz	35	38
PILOCARPINE, Muriate, grain	35	38
PIPERIN, oz	1 00	1 10
PHOSPHORUS, lb	90	1 10
POTASSA, Caustic, white, lb	60	65
POTASSIUM, Acetate, lb	35	40
Bicarbonate, lb	15	17
Bichromate, lb	14	15
Bitrat (Cream Tart.), lb	23	25
Bromide, lb	65	70
Carbonate, lb	12	13
Chlorate, Eng., lb	18	20
Powdered, lb	20	22
Citrate, lb	70	75
Cyanide, lb	40	50
Hypophosphites, oz	10	12
Iodide, lb	4 00	4 10
Nitrate, gran, lb	8	10
Permanganate, lb	40	45
Prussiate, Red, lb	50	55
Yellow, lb	32	35
And Sod. Tartrate, lb	25	30
Sulphuret, lb	25	30
PROPLYLAMINE, oz	35	46
QUININE, Sulph, bulk	30	32
Ozs., oz	36	40
QUINIDINE, Sulphate, ozs., oz	16	20
SALICIN, lb	3 75	4 00
SANTONIN, oz	20	22
SILVER, Nitrate, cryst, oz	90	1 00
Fused, oz	1 00	1 10
SODIUM, Acetate, lb	30	35
Bicarbonate, kgs., lb	2 75	3 00
Bromide, lb	65	70
Carbonate, lb	3	6
Hypophosphite, oz	10	12
Hyposulphite, lb	3	6
Iodide, oz	$ 40	$ 43
Salicylate, lb	1 75	1 80
Sulphate, lb	2	5
Sulphite, lb	8	10
SOMNAL, oz	85	00
SPIRIT NITRE, lb	35	65
STRONTIUM, Nitrate, lb	18	20
STRYCHNINE, crystals, oz	80	85
SULFONAL, oz	40	42
SULPHUR, Flowers of, lb	2½	4
Pure precipitated, lb	13	20
TARTAR EMETIC, lb	50	55
THYMOL (Thymic acid), oz	55	60
VERATRINE, oz	2 00	2 10
ZINC, Acetate, lb	70	75
Carbonate lb	25	30
Chloride, granular, oz	13	15
Iodide, oz	60	65
Oxide, lb	13	60
Sulphate, lb	9	11
Valerianate, oz	25	30
ESSENTIAL OILS.		
OIL, Almond, bitter, oz	75	80
Sweet, lb	50	60
Amber, crude, lb	40	45
Rec't, lb	60	65
Anise, lb	3 00	3 25
Bay, oz	50	60
Bergamot, lb	3 75	4 00
Cade, lb	90	1 00
Cajuput, lb	1 60	1 70
Capsicum, oz	60	65
Caraway, lb	2 75	3 00
Cassia, lb	1 75	1 80
Cedar	55	85
Cinnamon, Ceylon, oz	2 75	3 00
Citronelle, lb	80	85
Clove, lb	1 20	1 30
Copaiba, lb	1 75	2 00
Croton, lb	1 50	1 75
Cubeb, lb	2 50	3 00
Cumin, lb	5 50	6 00
Erigeron, oz	20	25
Eucalyptus, lb	1 50	1 75
Fennel, lb	1 60	1 75
Geranium, oz	$1 75	$1 80
Rose, lb	3 20	3 50
Juniper berries (English), lb	4 50	5 00
Wood, lb	70	75
Lavender, Chiris. Fleur, lb	3 00	3 50
Garden, lb	1 50	1 75
Lemon, lb	1 75	1 80
Lemongrass, lb	1 50	1 60
Mustard, Essential, oz	60	65
Neroli, oz	4 25	4 50
Orange, lb	2 75	3 00
Sweet, lb	2 75	3 00
Origanum, lb	65	70
Patchouli, oz	80	85
Pennyroyal, lb	2 50	2 75
Peppermint, lb	3 60	3 75
Pimento, lb	2 60	2 75
Rhodium, oz	80	85
Rose, oz	7 50	11 00
Rosemary, lb	70	75
Rue, oz	25	30
Sandalwood, lb	5 50	7 50
Sassafras, lb	75	80
Savin, lb	1 60	1 75
Spearmint, lb	3 75	4 00
Spruce, lb	65	70
Tansy, lb	4 25	4 50
Thyme, white, lb	1 80	1 90
Wintergreen, lb	2 75	3 00
Wormseed, lb	3 50	3 75
Wormwood, lb	4 25	4 50
FIXED OILS.		
CASTOR, lb	9	11
COD LIVER, N.F., gal	1 25	1 30
Norwegian, gal	2 75	3 00
COTTONSEED, gal	1 10	1 20
LARD, gal	90	1 00
LINSEED, boiled, gal	62	65
Raw, gal	60	62
NEATSFOOT, gal	1 20	1 30
OLIVE, gal	1 20	1 25
Salad, gal	2 50	2 60
PALM, lb	12	13
SPERM, gal	1 40	1 45
TURPENTINE, gal	60	65

The Standard Brands.
MILLIONS OF EACH BRAND Sold Annually.
'Cable Extra' 'El Padre' 'Mungo' and 'Madre e'Hijo'
S. DAVIS & SONS MONTREAL, P.Q.

"DERBY PLUG," 5 and 10 cts., "THE SMOKERS' IDEAL," "DERBY," "ATHLETE" CIGARETTES, ARE THE BEST.

D. RITCHIE & CO., - - Montreal.

Drug Reports.

Canada.

During the past month business has shown signs of activity, and although early for a decided increase in the volume of orders, yet reports, especially in the eastern provinces, are exceedingly favorable. The crops in all sections are above the average, and there is every indication of an active business season approaching. The time of "fairs" is on us with all its force, and, as a consequence, trade is fluctuating, the cities and towns everywhere having their good and bad days.

There is little to note in the drug market this month. What changes have taken place have, for the most part, shown an advance in prices.

Cream tartar has advanced about two cents per pound.

Tartaric acid is likewise higher, and tending still upward.

Quinine firm, and moderate demand.

Opium remains about at last quotations. This is one of the very uncertain drugs which goes up and down without apparent cause, due principally to the varying advices from the growers, as well as the manipulations of the speculator.

Camphor continues to advance somewhat. This product is higher in New York than in England.

Sulphate copper is firm, owing to the rise in the metal itself.

Cod-liver oil has again advanced.

Carbolic acid remains at last month's quotation.

Essential oils have all an upward movement in price.

Salicylic acid remains very low, and demand light.

England.

London, Aug. 28, 1895.

Business has been dull during the month, but prices remain for the most part unaltered. Bismuth has dropped during the early part of the month and camphor materially advanced. It is quite probable that both articles will progress further in their respective directions. Quicksilver is firmer, but mercurials unaltered. Cocaine is easier. Opium remains unaltered, and buyers are standing off for further developments. Cream of tartar has, during the past week, advanced slightly, and ipecacuanha is dearer. Balsam of Peru is still very high-priced and in fair demand, and quinine is selling freely at a fractional advance.

A stock of goods without advertising is like a gun without ammunition—there's nothing to make it "go off."

A good ad. tells the people something that they do not know, but wanted to know, without being aware of the fact.

An advertisement—like a cigar—should be so good that the first whiff or impression will cause a man to finish it.

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VII. TORONTO, OCTOBER, 1895. No. 10

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

Subscription, $1 per year in advance.

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New advertisements or changes to be addressed

Canadian Druggist,

20 Bay St. TORONTO, ONT.

EUROPEAN AGENCIES:

ENGLAND: Aldermary House, 60 Watling Street, London, E. C.

FRANCE: 5 Rue de la Bourse, Paris.

CONTENTS.

A Time for Action.
To Correct Abuses.
Drug Men on the Diamond.
Pharmaceutical Examinations.
Ontario College of Pharmacy.
The "Lodge Doctor."
Glycerin Ovules and Suppositories.
Gutta-Percha from Dried Leaves.
TRADE NOTES.
Nova Scotia Notes.
Prince Edward Island Notes.
Manitoba Notes.
British Columbia Notes.
Trade Journal Advertising.
Side Lines for Druggists.
CORRESPONDENCE.
Legitimate Protection to the Druggist.
Did not Join the O.C.A.
The Educational Question.
Queries and Answers.
Pharmacy in England.
Taka Diastase.
The Pumice-Stone Industry of the Lipari Islands.
Substitute for Natural Sulphuretted Waters.
What We Are.
Safeguards against Adulteration.
EDITORIALS.
Transient Traders.
A Questionable Experiment.
The Care of Stock.
What the Pharmacist should know about certain Poison Accidents.
Manufacture of Surgical Dressings.
Some of the Trials of Druggists.
Fraud in Ginseng.
Recent United States Patents.
FORMULARY.
PHOTOGRAPHIC NOTES.
PHARMACY ABROAD.
BUSINESS NOTICES
BOOKS AND MAGAZINES.
Device for Filling Gelatine Capsules.
Who Owns the Prescription?
DRUG REPORTS.

A Time for Action.

The general outbreak of a crusade of "cut prices" has awakened the drug trade throughout this province to a sense of the danger which threatens them, and the consequent demoralization of business. Not only in the large centres, but in a number of smaller towns, the selling of proprietary remedies at reduced rates has begun, and is being extensively advertised, not only through the press, but also by circulars and dodgers, giving as much publicity as possible to the fact, and rendering it almost impossible to get regular prices, not only in these lines, but also in others which are handled by druggists. Many reasons are assigned for this evil, the "department" store is charged with its inception, the increasing number of patent medicines, and the overcrowding of the drug business, are all assumed factors in this movement; but no matter what the cause may be, the evil is with us, and it remains to be seen what course should be adopted for its suppression. There are the few, we doubt not, who, for their own interests alone, are willing that this state of affairs should exist; but the drug trade as a whole, outside of these few, are opposed to any such business methods, and are anxious that something should be done, and that at once, to stem the tide of demoralization, and to bring matters into shape again. Various plans have been suggested, and many of them tried in the United States, to combat the evil, but it still prevails, and nothing but united action on the part of manufacturers and retailers can in any way retard the movement and leave the "cutter" in the lurch. Every one who is in any way connected with the drug trade is or should be interested in any movement towards a remedy of the evil, as, if allowed to go on, it will extend its ramifications beyond the mere patent medicine trade and will invade all lines kept by druggists, and must necessarily result disastrously to the wholesale as well as to the retail trade. An endeavor is, we understand, being made to form an association, to be composed of the wholesale druggists, patent medicine proprietors and jobbers, and representative retail dealers, whose duty it will be to discuss this question in all its bearings, and, if possible, devise some measures which will prevent the further spread of the disturbing element. In the meantime, we advise all druggists to resist any encroachments of this kind, and to further, by every means in their power, any feasible plan which may be put forward looking to a speedy settlement of the question.

To Correct Abuses.

The following resolutions, as passed at the Denver meeting of the American Pharmaceutical Association, should commend themselves to all thinking pharmacists, and organizations for the purposes mentioned should be looked after. As we have mentioned in another place, delay means danger, and perhaps, ultimately, defeat, and any action to be taken should be commenced at once:

Whereas the American Pharmaceutical Association has the best interests of the retail pharmacist at heart; and whereas it is self-evident that thorough organization will elevate the condition of pharmacy as a profession; and

Whereas the American Pharmaceutical Association pledges its support to any well-directed efforts made by such organizations for the accomplishment of the desired results;

Be it resolved, That we urge it as of vital importance that permanent local associations should at once be effected everywhere to correct such abuses as exist.

Resolved, That such local organizations should at once give their attention to the correction of the following abuses:

(1) Department store drug traffic.

(2) Indirect and irregular business transacted by the jobbing trade.

(3) Influencing the medical profession to return to their first allegiance.

(4) Turning the traffic of manufacturing pharmacists to its legitimate chan-

nel, as indicated in the resolution adopted by the association at its forty-second annual meeting, and printed on page 78 of the proceedings of that year.

Resolved, That the secretary of this section be instructed to send a copy of the resolutions adopted to the president and secretary of all state organizations, and to such local associations as may be known to exist.

Drug Men on the Diamond.

A friendly game of baseball was played on Saturday afternoon, October 5th, on the Exhibition Grounds, Montreal, between a team from the wholesale drug houses of Lyman, Knox & Co. and Kerry, Watson & Co. Kerry, Watson & Co.'s team won. Score, 32–16. Mr. T. D. McLeish kindly acted as umpire.

Pharmaceutical Examinations.

The Preliminary Board of Examiners of the Pharmaceutical Association of the Province of Quebec held their quarterly examinations in Montreal and Quebec on Thursday, October 3rd, when twenty-seven candidates entered for examination, and of these the following passed in order of merit, namely: Wilfrid Barolet, E.B.T. Brown, J. Clifford White, Allan Christie, O. Rouillard, F. W. Horner, H. E. Archambault, and J. T. Moreau.

The examiners were Prof. A. Lebland de Brumath and Prof. Isaac Gammell, with Mr. J. Emile Roy as supervisor at Quebec.

The next examination will take place on the 2nd of January, 1896. The regular semi-annual examinations for major and minor candidates will be held in Laval University, Quebec, on Tuesday, October 15th, and quite a large number of candidates have entered for these examinations.

Ontario College of Pharmacy.

The attendance at this college this term is the largest in the history of the institution, there being 117 students, one of the number being a young lady.

The "Lodge Doctor."

The physicians of London, Ont., are uniting in an effort to abolish the "lodge doctor" attached to each of the various beneficiary societies. The doctors claim that it is unfair to them, and that they are imposed on by members of the families of members of the various lodges, who demand their services on trivial occasions because the fee is insignificant. Furthermore, the ethics of the profession are alleged to be violated, and the London doctors hope that the medical men of other Canadian cities and towns will second their efforts.

A petition has been circulated among the medical men asking that each pledge himself not to accept the position of lodge doctor on penalty of a forfeit of $100. Of the 46 or 47 doctors in London about 40 have signed the agreement, and already the lodge men have started to bestir themselves. They threaten, in case the movement is put into practice, to import doctors of their own, to the detriment of the London doctors, and there the matter rests.

Glycerin Ovules and Suppositories.

Now that the suppositories and ovules containing glycerin have entered the dominion of pharmacy, it will not be altogether useless, perhaps, to given new *modus operandi* for their preparation. The usual formula for their manufacture is with general accord given as follows: Isinglass or gelatin, distilled water, and glycerin. Such suppositories have the great disadvantage of being more or less sticky, of adhering frequently to the mould, and, when the mass is not sufficiently homogeneous, of giving defective, opaque, and dirty gray-colored products. The author has tried various excipients having the power of solidifying glycerin, but none have given completely satisfactory results.

Finally, he had recourse to agar-agar, or gelidium corneum, and believes he is right in his preference for it. These are the proportions used: Agar-agar, in small pieces, 10 grammes; distilled water, 200 grammes. Make a smooth soft paste by the aid of heat, stirring constantly, and then add glycerin, 200 grammes. Mix thoroughly, add any medicament required, and strain. The suppositories and ovules obtained are transparent, less elastic than those made with gelatin, and more easily detachable from the moulds and from the capsule used to make the mass in, from the little tendency it has to become granular or lumpy. It seems, therefore, from the double point of view, cleanliness and ease of manipulation, it is advantageous to substitute agar-agar for gelatin, and its price is equally low with that of gelatin. —*Il Giornale di Farmacia.*

W. R. Watson's Drug Store, Charlottetown, P.E.I.

Gutta-Percha from Dried Leaves.

A new enterprise that it is claimed will largely increase the output of gutta-percha is the collection and export of the dried leaves of the gutta tree. At first a few small packages of leaves were forwarded to Paris and once there an excellent quality of pure gutta-percha was extracted, the leaves yielding from seven to ten per cent. of their weight of the manufactured article. Mons. F. Hourant, who sent the leaves to France, after some difficulty succeeded in getting the natives to work systematically at the collection of the leaves, and now they are being exported in quantities which increase from month to month. He has erected a factory at Kuching for the purpose of thoroughly drying these leaves before shipment. The advantages of this method are evident. The natives formerly cut down a tree to obtain the sap and from this, if it were an adult tree twenty-five to thirty years of age, there was obtained one catty of pure dry gutta. Fully as much can be obtained from two pluckings of the leaves of the same tree without injuring it, for it will long continue to put out fresh foliage, and, what is more important, will live to seed and reproduce its species. This is an important point, as the best gutta trees do not bear fruit until thirty years of age. The gutta obtained from the leaves is also pure and dry, which is much more than can be said of the ordinary Dyak gutta. The millions of trees that have already been destroyed by the native gatherers are also still of service, as their stumps have sent out numerous small shoots, and, though these are too small to be tapped, their leaves are as good as those of the adult tree.—*India Rubber World.*

A New Method of Applying Leeches. —The leech is placed in a large test tube partly filled with water. The open end of the tube is then placed against the part, when the leech promptly fixes itself to the skin.

A. Y. SCOTT. D. MacMILLAN.

Scott & MacMillan

Manufacturers of

TRADE MARK

Perfumes
Perfumed Waters
and
Toilet Sundries

TELEPHONE 2052.

14-16 MINCING LANE, TORONTO, ONT.

Perfumes

PERSIAN LILAC *SWISS CLOVER* *SPANISH BOUQUET*
MO-KO-KA *JASMIN* *CARNATION*
WHITE ROSE *WHITE HELIOTROPE* *JOCKEY CLUB*
CRAB APPLE BLOSSOM

Perfumed Waters

LILAC • VIOLET • LAVENDER, ETC.

Sundries

ALMOND CREAM,
PANSY VIOLET TOILET POWDER,
PANSY VIOLET JELLY CREAM,
PANSY VIOLET TOOTH POWDER.

DR. HAIR'S ASTHMA CURE

Relief Quick **Cure Certain**

Dr. Hair's Asthma Cure is a remedy made according to scientific knowledge that will cure **Asthma.** Thousands are permanently cured annually by this cure. It is a radical, speedy, and sure cure for all forms of Asthma. It is for sale by all the leading wholesale druggists in the Dominion of Canada, to wit: Lyman Brothers & Co.; Evans & Sons, Toronto, Ont.; Lyman Sons & Co., Montreal, Quebec; Forsyth, Sutcliffe & Co., Halifax, Nova Scotia; J. Winer & Co., Hamilton, Ont.; and T. B. Barker & Sons, St. John, New Brunswick.

A supply of Dr. Hair's pamphlets, and other Asthma literature, also prices and terms, will be sent to any retail druggist on request.

All druggists should keep this remedy.

Your early orders and enquiries solicited through wholesale druggist, or direct from us.

None genuine without the trade-mark.

Manufactured only by Dr. D. W. Hair, Cincinatti, O., U.S.A. Address,

DR. W. B. HAIR

341 West Fourth St., Cincinnati, O.

We beg to offer to the Drug Trade our

Effervescent

Hydrobromate of

Caffeine

and

Bromide of Potassium

WHICH we have placed upon the market to fill the want of a Febrifuge and Nervous and Muscular Stimulant of this combination, which will allow the retailer a profit that will fairly compensate him for attention to its distribution.

Like our Citrate of Magnesia, it is pure white, and bears evidence of most careful preparation.

10c. Size (two doses) 1 Dozen in a box.
25c. Size (twelve doses) ½ Dozen in a box.
Also Pound Bottles for Dispensing.

Show it to your Physicians.

Canadian Cattle Spice

Will increase your country trade. 100 lb. Cotton Bags, and 10c. packages (about a quart).

ELLIOT & CO.

5 FRONT STREET EAST

TORONTO

J. STEVENS & SON,

78 LONG LANE, - LONDON, E.C., ENGLAND

Red Cross English Dressings,
Druggists' Specialties,
Glass and Earthenware,
Hospital Supplies and Instruments.

1895 List and Discounts now ready.

CANADIAN AGENCY:
145 Wellington Street West,
TORONTO

ALL KINDS OF . . .

CRUDE DRUGS.

- - SPECIALTIES OF - -

FREDK. GRAF, DRUG MERCHANT,

65 FENCHURCH ST., LONDON, E.C.

Established 1886. Prices and samples on application.

PHOTOGRAPHERS Leading Professional and Amateurs

—USE THE—

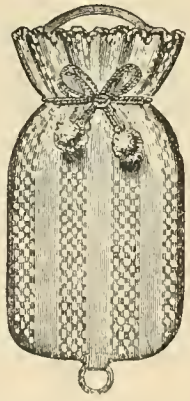
WALPOLE HYPO SULPHITE OF SODA

Every lot tested chemically and photographically before shipping. If your supply man does not keep the Walpole Hypo we will supply your wants, 1 *lb. or tons.*

WALPOLE CHEMICAL WORKS, Walpole, Mass.

We have a New Line of

Hot Water Bottles



which we are offering to the trade at

Very Low Figures

We can give you a two-quart hot water bottle to retail at 75 cents each.

Prices and quantity discount on application.

ALPHA RUBBER CO., LTD.
MONTREAL, CANADA.

DICK'S UNIVERSAL MEDICINES FOR HORSES AND CATTLE

They always give entire satisfaction, and there are no medicines in the market that can compare with them.

Thrifty farmers, stockowners and carters all over the country are, by actual results, realizing that they cannot afford to be without a supply of

Dick's Blood Purifier Price 50c.
Dick's Blister, for Curbs, Spavins, Swellings, etc. Price 50c.
Dick's Liniment for Cuts, Sprains, Bruises, etc. Price 25c.
Dick's Ointment. Price 25c.

Circulars and advertising cards furnished.

DICK & CO., P.O.Box 482, MONTREAL

The Best Brushes

Hair, Tooth, Nail, Shaving, Bath, Cloth, Infants'

MANUFACTURED BY

A. Dupont & Co.

PARIS

Agents for Canada—

J. PALMER & SON,

1747 Notre Dame Street, MONTREAL

Rapid . . . . Sellers

LUXTEN'S INSECT POWDER

London Drug Co.'s

Sticky Fly Paper
Lime Juice (½ Pts., Pts., and Qts.)
Moth Balls in 10-cent boxes.
Storey's Headache Powders 10-cent packages.
Gem Rings
Mixed Spices
Stafford's White Paste Cleaner and Stronger than Mucilage

THE

LONDON DRUG CO.,

LONDON, ONT.

THE

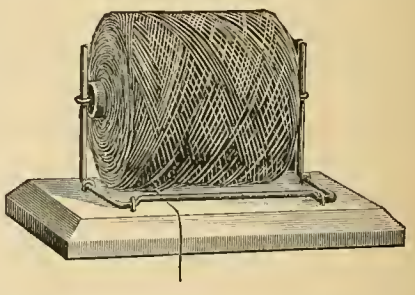
Lyman Bros. Co.

(Limited)

TORONTO, ONT.

Sea Island Twine

(on Rollers).



One Roller and 5 lbs. Twine for $1.75.

Blanco.

Eugene's Corn Salve.

Fairchild Bros. & Foster's Ferroglobin Tablets.

Fairchild Bros. & Foster's Thyroid Tablets.

Kootenay Cure.

Keasbey & Mattinson's Alkalithia Gold Cure for Asthma.

Cape May Sea Salt

(in Boxes) retails at 15c.

Imperial Borated Talcum

Best value, and gives best profit to retailer of any similar powder in the market.

We are headquarters for the

Celebrated Perfumes

Manufactured by LOUIS R. HARRISON & Co., New York.

Trade Notes.

R. Braine has opened a new drug store in Canso, N.S.

D. L. Tremain has opened a new drug store in Truro, N.S.

Dr. M. Case has opened a new drug store in St. John, N.B.

W. C. Law & Co. have opened a new drug store in Beeton, Ont.

W. D. Coate, Keewatin, Ont., has sold his drug business to R. H. Gilchrist.

C. J. Pasmore has purchased the drug business of Mr. Kilgour, Arthur, Ont.

John McBride, Port Dover, Ont., has sold his drug business to R. M. Taylor.

Dr. Holden, of Three Forks, B.C., has removed his drug store to New Denver, B.C.

The drug store of A. S. Hutchins, Liverpool, N.S., was destroyed by fire last month.

The business of W. D. Coate, druggist, Keewatin, Ont., is now carried on by R. H. Gilchrist.

B. W. Robinson has purchased the drug business of Kirby Bros., 167 Banks street, Ottawa, Ont.

W. R. Reid has purchased the drug business of J. C. Johnston, 718 Queen street west, Toronto, Ont.

E. D. Storey, formerly with H. Watters, has purchased the drug business of Jos. Rickey, Ottawa, Ont.

Allan & Co., wholesale drug sundries, have removed from 53 Front street east to 132 Bay street, Toronto.

H. J. Dager's drug store, Norwich, Ont., was destroyed by fire, September 16; loss, $4,500; insurance $3,000.

Mr. Blackie is about opening a new drug store on the corner of Queen street and Spring Garden Road, Halifax, N.S.

The drug store and residence of R. B Ostrom, Frankford, Ont., was destroyed byfire last month; loss, $4,500; insurance, $3,000.

J. G. Shuff, of Dundas street east, London, Ont., has removed to his new drug store, corner of William and Dundas streets.

The drug business of E. Pimbury Co., Union, B.C., has been purchased by C. Van Houton, who has managed it for some time.

The Canada Linseed Oil Mill Co., with a capital stock of $100,000, and principal place of business Mission City, B.C., has been incorporated.

We are pleased to learn that N. C. Polson, of Kingston, Ont., has almost completely recovered his health. He intends, we believe, commencing business again in that city.

Dr. S. A. Metherell, formerly of Victoria, B.C., has purchased the drug stock of the Victoria Drug Co. (J. F. Rolls) at 50 cents on the dollar. The stock is valued at $6,000. The business will be under the management of George T. Mallory, formerly of Victoria.

A. Land, of Niagara Falls South, Ont., has moved into his new drug store on Main street, facing Culp avenue, and is justly proud of his handsome place of business. The building is 50 x 22 feet, with ornamental plate glass front, and an interior finish of quartered oak. The tile flooring was imported from Germany, and is of very unique pattern, with the words "A. Land" set in the doorway. Mr. Land has occupied his former place of business adjoining the new one for twenty-six years, and he now finds himself "at home" in a store that would grace a metropolis. A handsome soda water fountain, manufactured by the Fletcher Manufacturing Co. of Toronto, occupies a prominent position near the entrance, and at its rear are full lines of school supplies, stationery, patent medicines, etc.

Nova Scotia Notes.

Mr. J. A. Craig, the well-known Yarmouth druggist, is at present enjoying a trip to Niagara Falls, and visiting the western cities. That Mr. Craig may spend a pleasant holiday is the wish of his many friends.

Mr. Charles S. Silver, the popular traveller for the firm of Simson Bros. & Co., is off the road for a short time, completing his studies for the pharmaceutical examinations.

Mr. Edmund Jenner, of Guysboro, also proposes spending the winter in Halifax, in order to pursue his studies.

The new drug store of Mr. Blackie, who recently opened on Spring Garden Road, Halifax, presents an attractive appearance.

Mr. Tupper Foster, formerly of Canso, is at present with Simson Bros., Halifax. Mr. Foster also proposes to attend the pharmaceutical examinations ensuing.

Mr. Henry Lyman, the senior member of the firm of Lyman, Sons & Co., wholesale druggists, St. Paul street, Montreal, celebrated his eighty-second birthday on October 4th. He received many congratulations while at his office or about the street during the day. The firm was established in 1800, ninety-five years ago, and Mr. Lyman's connection with it covers a period of nearly sixty years.

Prince Edward Island Notes.

The Island press is unanimous in declaring that the exhibit made by Mr. W. R Watson, of Charlottetown, at the Provincial Exhibition, held a few days ago, was not only the handsomest in the building, but the finest ever made by any business house in the province. The exhibit attracted large crowds who were much interested in it. Besides Mr. Watson's own preparations arranged in pyramids, there were a cabinet of rare drugs, another of elegant pharmaceutical preparations, a very handsome pyramid of perfumes, large sponges, brushes, costly carved pipes, original packages of drugs, beautiful cases of cigars, and a series of large cards covered with sundry articles arranged in artistic designs, and representing various departments of the business. The exhibit represented a great deal of work and enterprise, and should bring favorable results to the exhibitor.

Mr. Davies was the only other exhibitor among the druggists. His exhibit did not consist of drugs, but of a fine line of the "Comet" bicycles, for which he is the Charlottetown agent. Mr. Davies not only rode in the bicycle races, but was the first to import a "wheel built for two" into Prince Edward Island.

Manitoba Notes.

Classes in pharmacy will open at the Manitoba Medical College, Winnipeg, on the 2nd of October next. It is expected that a very large number of students will be in attendance during the coming winter term.

Mr. C. S. Touchbourne, of Fort Saskatchewan, was called to his home in Alexander recently by the death of his father, a wealthy and highly respected farmer of that district. Having made arrangements to dispose of his business, Mr. Touchbourne will not return to Saskatchewan.

Mr. J. R. Wynne, of the Canadian rifle team, returned to Winnipeg last week after an absence of three months, during which time he visited many of the large cities of the old land, as well as attending to his duties at Bisley as a member of the team. He also participated in the rifle matches at Montreal and Ottawa.

Dr. J. B. Morrison was in Winnipeg last week giving an opening order for a new drug store to be established at Whitewood, N.W.T. The style of the firm will be Morrison Bros.

Mr. J. A. Wright, of Boissevain, is now on his way east, where he will visit many of the large cities.

Mr. R. F. Greer, who has been in the province for some weeks looking after his business interests, returned to Toronto, accompanied by Mrs. Greer and their little daughter.

Mr. W. J. Mitchell and his staff have been busily engaged during the last few weeks removing his stock to the old stand in the Western Canada Loan Company's block, which was destroyed by fire in the early part of last winter. The new building is an imposing structure, and a great many improvements are noticed over the old building.

Mr. R. B. Taylor, of Grenfell, has just returned from Guelph, Ont., where he attended the annual meeting of the Supreme High Court of the Canadian Order of Foresters.

Dr. John Hutchinson, of Grenfell, was in Winnipeg for a few days attending the opening of the Manitoba Medical College.

Mr. W. E. Cowan, druggist, Deloraine, left last week for a month's visit to Ontario.

Mr. H. H. Casselman has returned to Winnipeg after a three months' visit to the east. He will take a position with Mr. C. M. Eddington.

Dr. Poole, of Roland, Man., has made arrangements for the opening of a drug store at that place.

Mr. C. M. Eddington, Market street drug store, Winnipeg, is making extensive alterations and improvements on his store, which, when completed, will be found to be as neat and commodious a drug store as may be seen in the west. A twenty-foot cement walk has recently been laid in front of the premises, which will add much to the appearance of the front store.

Mr. Charles E. Frasst, representing Messrs. Henry K. Wampole & Co., of Philadelphia and Toronto, has been travelling through the province on behalf of preparations manufactured by the firm.

Dr. R. P. Crookshinck and wife, of Rapid City, have just returned from an extensive trip to the maritime provinces.

Mr. Brent Good, of Carter's Pill fame, is expected in the province in a few days. He is travelling east over the Canadian Pacific Railway in a private coach.

A drug store will be opened at Russell, Man., in a few days.

British Columbia Notes.

Events of sufficient interest to warrant being recorded have been almost *nil* during the past month or so in this province. Considerable attention has been given to the gold mining in the Kootenays and Alberni, and some enterprising men have torn themselves away from the comforts of town life for the hardships of the more remunerative diggings.

Business has been better for months past, and a decidedly better feeling is noticeable among the people. That the druggists have faith in the continuance of the improvement is evidenced by the decided strides made along the line of store embellishment. The days of musty, dusty, mysterious drug stores are long past, and yet there are some antiquated pharmacists who still persist along the old paths. Druggist C. E. Jones has in contemplation extensive alterations, in which he will enlarge his floor space, but moving down Government street a couple of stores, and in future occupying two instead of one.

Some few druggists in Vancouver, Westminster, and Victoria, have joined the Ontario Chemists' Manufacturing Company, and have placed the goods on the market. From what we have been able to gather, the medicines so far introduced have given satisfactory results.

The council of the B.C.P.A. met in the offices of Messrs. Lanley & Co. on September 19th. The business transacted was of an unimportant routine nature, although vows were registered by all present to secure the proper observation of the new amendments to the Pharmacy Act, and especially the sale of poisons. As the Act, as a whole, may be said to be fairly strong, those druggists who do not comply with its provisions may find themselves money out ere long.

Dr. S. A. Metherall, formerly of Victoria, has purchased the stock and business of the Vancouver Drug Company, Vancouver, for $3,000. Mr. Mallory, formerly with C. E. Jones, of Victoria, has gone to manage the business, and it is understood he also has an interest in the business.

J. F. Rolls, late of the Vancouver Drug Company, has opened up at Three Forks.

Mr. Allen, graduate of the O.C.P., is the new clerk at Messrs. Langley & Co.'s, Victoria.

Mr. Charles Van Houten, it is reported, has acquired the proprietorship of the branch drug store which he formerly managed for E. Pimbury & Co. in Union.

Trade Journal Advertising.

By E. H. Gane, Ph.C., New York.

Those who speak lightly as to the efficacy of trade journal advertising have evidently not given the subject that consideration which it merits. We believe that the facts will bear us out in the assertion that more can be accomplished, with a given amount of expenditure, through trade journals than in any other way. By this we mean that let two articles be of equal merit—one of which is adapted to the members of some branch of a trade and the other for the public in general—and it would take, in all likelihood, three or four times as much money to secure the same reputation for and results from the latter as from the former. What can be accomplished in the shoe and leather trade is being demonstrated right along. We have in mind numerous cases where the most wonderful and satisfactory results were achieved. One house, whose business was not satisfactory, and which produced an article which is no more of a specialty that plain sole leather, calfskins or linings, decided, after much persuasion, to appropriate $5,000 for advertising purposes during a recent year. Arrangements were made with a number of the leading trade journals for a page of space regularly. A man with original ideas carefully prepared the announcements and saw that they were inserted in a way calculated to accomplish the most good. What was the result? Well, it would be almost risky to tell, because some of the doubting Thomases may smile and shake their heads with incredulity. The plain, unvarnished truth, however, is that the expenditure brought back something like 5,000 per cent. of gain, although it was undertaken with considerable forebodings of failure. In another case an article used in connection with footwear was given such a reputation through the trade press in the space of about four months that every retailer in the country now demands it. There are scores of other illustrations which might be cited, all of which show that the trade press offers a field which is absolutely unrivalled for the obtaining of results by the expenditure of a comparatively small amount of money. Indeed, it is questionable whether too good results are not often secured to be advantageous to the publishers of the trade journals, because those whose business so speedily develops tremendous proportions are not inapt to get the idea that the gain is attributable to some other reason than advertising. In other words, they get such an exalted opinion of their shrewdness that they consider themselves too important to longer depend upon the publicity to be secured from the trade press. The natural result in many such cases is that the period of decadence sets in. Then, unless they are shrewd enough to renew their efforts in the direction of advertising, they are very apt to forever afterward decry the value of printers' ink.—*Shoe and Leather Facts.*

Side Lines for Druggists.

2. Paints and Oils.—The encroachments which have been made upon the lines which, in former years, were largely handled by the drug trade, together with the idea of many in the trade that drugs, "pure and simple," were all that should form the stock of the retail druggist, has had a tendency to divert lines of goods into other traders' hands, to the loss of the druggist. This line, of paints and oils, at one time formed a considerable part of the stock, and was a source of a good deal of revenue to a large number of druggists, and in many instances yet a goodly portion of this business is done by them. Where it is not deemed advisable to add to the stock a quantity of the heavier goods, a nice assortment of mixed paints, of high grade, together with brushes, form a desirable and lucrative addition to the drug store, and are quite in keeping with the business. Another line which may be classed with these, and for which the demand is on the increase, is:

3. Artists' Materials.—Tube paints, water colors, easels, palettes, a few studies, enamels, and crayons, together with other *etceteras* in the amateur or professional artists' line, may frequently be added with advantage. An excellent way of advertising a specialty of your own make, some proprietary remedy or toilet preparation, is to have a short pamphlet enclosed in parcels of these lines, which not only summarizes the variety of artists' materials which you handle, but speaks briefly and pointedly of your preparations.

To make the eyebrows grow, the *Popular Medical Monthly* advises the use of common salt. The brows are to be rubbed with this every night before going to bed.

Tooth Brushes

WE have a very large stock, and in great variety. Values are much better than we have ever before been able to offer. Our friends are invited to examine samples in the hands of our travellers, and compare prices before placing orders.

Millot's Chrysanthemum

All customers who have handled this splendid perfume will be pleased to know that we are again in receipt of a large supply. We have never before handled a perfume which created such a sensation.

MILLOT'S CHRISTMAS PERFUMES

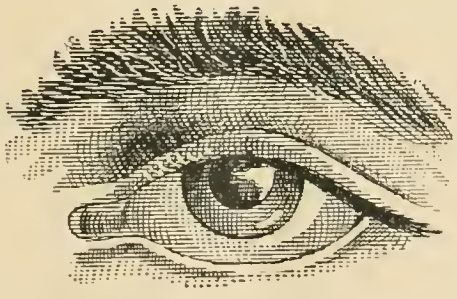
Finest quality goods, in fancy boxes, suitable for holiday trade. Try them ; they are great values.

Archdale Wilson & Company,

Hamilton, Ontario.

The Montreal Optical Co.

Head Office and Factory:
1685 Notre Dame St.
MONTREAL.



Branch Establishment :
60 Yonge Street
TORONTO

The next Course at the **Optical Institute of Canada** commences on Tuesday, November 12th

Applications for admission to this class must be sent in early.

Attention is called to our new

Optician's Record Book

Price, $2.00.

The Toronto Branch is in full working order.

Orders and R may be sent either to **Montreal** or **Toronto**.

LIVE DRUGGISTS

KEEP ON HAND

Dr. Campbell's Safe Arsenic Complexion Wafers...

AND

FOULD'S MEDICATED ARSENIC COMPLEXION SOAP

THE ONLY REAL BEAUTIFIERS OF THE COMPLEXION, SKIN, AND FORM

H. B. FOULD
SOLE PROPRIETOR
214 Sixth Ave., NEW YORK.

The LYMAN BROS. & CO.
CANADIAN AGENTS
71 Front St. E., Toronto, Ont.

The Harry Lewis DOG SOAP

Made from the Original Recipe

TRADE MARK.

Beautifully got up, and a Good Seller

Whale Oil Soap

In 1lb.boxes, 1 doz. in Case ;
In 20-lb. Pails and Barrels

For killing insects on Rose Bushes, Plants, etc.

THE ALBERT TOILET SOAP CO.,
Makers and Sellers *MONTREAL*

Sovereign . . Lime Fruit Juice

Is the Strongest, Purest, and of Finest Flavor

We are the largest refiners of LIME JUICE *in America, and solicit enquiries.*

For Sale in Barrels, Demijohns, and twenty-four ounce Bottles by wholesale in

TORONTO, HAMILTON, KINGSTON, AND WINNIPEG

SIMSON BROS. & CO., Wholesale Druggists
HALIFAX, N.S.

RUBBER GOODS

AT RIGHT PRICES

OUR LINE OF
ENEMAS, TUBING, FOUNTAINS, ATOMIZERS, is very complete and prices right. Buyers can effect great saving by placing orders with us.

SURE-SELLING SPECIALTIES:

CARSON'S BITTERS
PECTORIA
SILVER CREAM
ALLAN'S COUGH CANDIES
½ gross Box at $1 per Box.

SOAP BARK
In 5c. Packages, ¼ gross Box, $1 per Box.

Full lines of Sundries.

Mail orders promptly executed.

ALLAN & CO.
132 BAY ST., TORONTO

Correspondence.

The Editor does not hold himself responsible for the opinions of correspondents.
Correspondents must in all cases send name and address, not necessarily for publication.

Legitimate Protection to the Druggist.

Editor CANADIAN DRUGGIST :

SIR,—The law of Ontario gives the municipalities authority to levy a special tax on all fakirs, patent medicine vendors, etc., who travel, selling their preparations, either in the market place, on the street, or in halls in connection with concerts or shows.

A short time ago two enterprising men sold in a town in Canada over three hundred dollars' worth of their stuff, and all the town treasurer got was under five dollars, these men getting the best part of the market square for their purpose. Every druggist should see that a by-law is passed in his locality fixing the fee at a reasonable figure, say, from five to ten dollars a day.

We pay taxes; why should not the traveller? The fault is our own.

Now, this law has been on our statute book some years, and only a few places have passed the required by-law. Let those who can see no good in the efforts of the council to assist the trade look at home and see how much they have done to protect themselves.

Sept. 23rd, 1895. ONTARIO.

Did Not Join the O.C.A.

Editor CANADIAN DRUGGIST :

SIR,—Although rather late, allow me to correct an error that your B.C. correspondent made in his letter, printed in the July number. He states there "that the B.C.P.A. had, at its recent meetings, decided to join the Ontario Chemists' Manufacturing Co." Now, sir, the B.C.P.A. never heard the name of the O.C. Manufacturing Co. mentioned at any of its meetings; therefore the paragraph referred to is anything but true. It is a fact that certain members of the B.C.P.A., in their ordinary business capacity, have taken shares in, and bought goods from, the O.C. Manufacturing Co., but this is totally outside of our association.

Our next council meeting takes place in Victoria on Sept. 19th.

The semi-annual examinations (preliminary, junior, and major), and the meetings of the Board of Examiners, take place on Wednesday and Thursday, Oct. 9th and 10th. All applicants must notify the registrar and remit fees at least two weeks previously.

The drug business keeps dull, it being quite overdone in this province.

CHARLES NELSON,
Sec.-Registrar B.C.P.A.

Vancouver, B.C., Sept. 7th, 1895.

[This communication was received too late for the September issue.—ED. CANADIAN DRUGGIST.]

The Educational Question.

Editor CANADIAN DRUGGIST :

SIR,—In the last few issues of your paper some eminent writers have been discussing the drug trade, one an apprentice, of short experience, but exceedingly smart, supported by a friend from Guelph, advocating a long-time service, while the educational side is upheld by "A.M."

If you will allow me space in your paper, I would like to express my views on the subject of pharmacy.

Taking it from an educational standpoint, I do not know of any profession in which a person can have too much education, no matter what it is, and a person with good education is fit for any business in that line. I think pharmacy requires equally as good education as any other profession, and a great deal better than most of them.

Outside of a university course, I know of no other course where chemistry and botany are more minutely studied, and how can a person really understand those two subjects without having a good education? Thus I noticed, during my college course, that those having second-class certificates, although not any smarter than others, were able to get up their work with more ease, and take a higher percentage, than those who had only enough common education to, probably, pass the entrance examination to the high school. Therefore, I positively state that matriculation is beneficial, and should be made compulsory for pharmacy students as well as medical.

Regarding the apprenticeship, I think that three years would be sufficient. Any person that would not have a fair knowledge of the work in that time would himself or his employer be to blame. I think it should be on a much different scale from what it is now. The college course should be two years, and after the apprentice had served his first year with a good preceptor he should be familiar with all the drugs usually kept in a drug store, and have read a little about them. Then he should take his junior course of one year at college, and there be taught the introductory work, along with practical chemistry and pharmacy, as at present the older pharmacists are not up-to-date in the practical work and manufacturing of the various preparations; or, if so, they neglect to teach the same to their apprentices, so that they are allowed to go on doing work wrong for those three or four years, then sent to college to teach them to do it correctly. This may not be the case where they are with recent graduates of the Ontario College of Pharmacy. After their first year at college let them go back and put their thorough knowledge into execution in some store, and for the next two years go on reviewing and preparing for the next and final course. Then, and not before, will we have a thorough and lasting knowledge of pharmacy. So that I consider our long-term defender, "An Apprentice," is just a little out in his ideas, and might some day meet with a preceptor with whom he would not like to be bound down for seven years.

In referring to the business itself, it is not those who are going into it that are to blame, but those who are now in it, your humble scribe included with all others. Why can we not devise some lasting, substantial means of protecting our trade, go hand in hand, and try to aid the council to do something in this direction? In the past couple of years there have been some bluffs made at it through the Ontario Parliament, but they did not amount to anything. Can we not get protection as well as the medical profession did? We go through a long apprenticeship and a hard course of study at college to secure our diploma, and otherwise start in business, and we are fined. Yet such firms as The T. Eaton Co., and others, can advertise and sell medicines at prices which we cannot buy them from wholesale dealers for. There are dozens of stores run under some doctor's name, merely for protection, and they have no more interest in them than if they had never seen them. Here, I claim, is where the trouble lies, and not with those going into the business; for, as a rule, they are quite eager to keep up the prices, as it has cost them a nice sum to get that far, and accordingly desire as high a standard as possible. Mc.

Queries and Answers.

"R. C.," Toronto, asks for formula for curry powder :

CURRY POWDER.

Coriander	2 oz.
Ginger	2 oz.
Capsicum	1½ oz.
Cardamom	4 dr.
Black Pepper	3 oz.
Cummin	2 oz.
Cloves	1 oz.
Turmeric	12 oz.

The different ingredients should be reduced to a very fine powder and all intimately mixed together

"Wellington" asks for a formula for

POISON FLY PAPER.

We submit this to our readers and ask for replies, also to an enquiry from "T.C.J." for an

ELIXIR OF KOLA.

With the object of interesting our readers in these queries, we submit the two latter, and trust that some brother druggist will give the desired information.

The editor desires to make this a source of mutual benefit for all progressive pharmacists, and hopes that they will be as willing to impart knowledge as to receive the benefit of that of their *confrères*.

Helcosol is the very awkward name bestowed by Dr. Negrescu upon bismuth pyrosubgallate.

Pharmacy in England.

(From Our Own Correspondent.)

The Druggists' Exhibition.—It is satisfactory to record that pharmacy has at last had an effective exhibition, carried to a successful issue, in London. When it is remembered that, some three years ago, it was my painful duty to describe an exhibition, held at the same place—the Royal Agricultural Hall—that resulted in a dismal failure and the bankruptcy of its projector, some uncertainty as to the venture on this occasion was not altogether surprising. On entering the hall, the exhibit of the Chemists' Aerated and Mineral Waters Association was most prominent. It occupied fully three or four times as much space as any other exhibit. A wall of gigantic siphons had been erected on all four sides, and plants gracefully arranged inside, with comfortable lounges and little tables for those who stayed to taste. A good-sized pavilion was erected in the centre and decorated with flags, and here business was transacted. Parke, Davis & Co. were well to the front with their improved pharmaceutical preparations, and amongst their novelties the "Taka Diastase" occupied a good deal of attention from the trade. Its extraordinary strength, namely, that of converting one hundred times its weight of dry starch, points to a remarkably pure ferment. Burroughs, Wellcome & Co. had a central position and an elegant exhibit, which comprised all their well-known specialties. But public interest was chiefly centred in the unique collection of medicine chests which here found a resting-place. There was Stanley's case, that journeyed through "Darkest Africa" in the Emin expedition; also those of the late Captain Stairs, Mr. Julius Price, Dr. Burland, and other celebrated travellers. It is evidently part of every explorer's "kit," so that a Burroughs, Wellcome & Co.'s medicine chest is now a necessity. Oppenheimer, Son & Co. had an elegant display, with palatinoids as a centre and bi-palatinoids a prominent side dish. Whether the medicine of the future—and our food, perhaps—is to be administered in the compressed tablets or the gelatine discs is a problem, but these two forms are fast becoming rivals. For ease in swallowing and solubility of the drug inside, the palatinoid is a distinct advance on the tablet, and there is no fear of its passing through the system—even of invalids—undissolved. Stern's pepsine and pumiline preparations were elegantly displayed, and a novelty was "Narissa," a food which is recommended as a substitute for cocoa, tea, or coffee. The firm of G. & G. Stern are warm advocates of the rebate system of defeating extreme "cutters," and their conditions are: If an agreement be signed not to sell the 60-cent size under 53 cents and the 14-cent under 12 cents, a bonus of $1.08 and 24 cents, respectively, per dozen will be allowed. Potter & Clarke are an old-established firm, and yet new at this exhibition work. In a smaller way, they are the McKesson & Robbins of London, as their trade in herbs and drugs is as large as most of the other houses put together. Of recent years they have developed some useful proprietaries, such as Datura Asthma Cure, and other popular herbal remedies. Another interesting and highly popular exhibit was that of Fergusson & Forster, the sole agents for the "Solazzi" brand of liquorice. The delightful odor was apparent some distance off, and attracted numbers of visitors, especially as the display was all the more effective from the contrast of the dark liquorice in lofty piles and huge pipes with the old gold color of the handsome draperies of the stall. Chemists who desire to maintain their reputation for pure drugs sell only the "Solazzi" brand, as it is absolutely free from added starch and other adulterations, and is completely soluble in water. It has for many years sustained the reputation of a standard article of great purity, and remains the type of what good liquorice should be. Armours, of pepsin fame, had a prominent position, and were well visited. Their high-grade pepsin, in scale, powder, and liquid form, was plainly in evidence, and visitors sampled their extract of beef-tea, called "Vigoral," with much satisfaction. Space will not allow of my describing the various druggists' sundries exhibited, or the disinfectants, hair restorers, trade machinery, etc., but sufficient has been given to indicate the representative character of the exhibitors. It is arranged that this affair shall take place annually, and the enterprising journal, *The British and Colonial Druggist*, that organized the exhibition, may be sincerely congratulated on the auspicious start of the series.

Reciprocity in Pharmaceutical Certificates.—A few years ago I drew attention to the one-sided manner in which the British Pharmaceutical Society regarded colonial certificates in pharmacy. Whilst nearly all our self-governing colonies and all the dependencies recognize the British certificate, and register the pharmacist on the strength of it, the English society has steadily refused to accept any in lieu of its own, and quite recently has declined to admit the Irish preliminary examination as an equivalent to its own. As this strikes me as exceedingly selfish behavior, and directly opposed to the broad policy of consolidating pharmacy in the empire, I am pleased to see that the new Pharmacy Act of Western Australia expressly refuses recognition of pharmaceutical diplomas from countries declining to reciprocate the courtesy. It is rather an independent attitude to take up, especially as golden "Westralia," as it is called in stock exchange parlance, owes everything to the enterprise of the British investor in its mines. But if a few more colonies take up the same position, the British society will have to revise its rules, or some of the possible openings for the qualified men annually graduating in the old country will be closed.

Prostitution of Position.—The leading article under this title of the Canadian Druggist, in its last issue, hits at one of the most depressing circumstances in pharmacy and indicates the remedy. Not a single drug department in the stores could be legally open in England to-morrow but for the fact that qualified men are to be found ready to demean their profession and undermine their *confrères*. Oh, if only the whole army of qualified pharmacists were to unite to save their calling and determine to have nothing to do with the unclean system! But there is a little satisfaction left to us in that, if some of our young graduates are tempted by the short hours and slightly increased salaries of the dry-goods stores, they do not offer their services with a pound of tea! This is the latest phase of medical degradation in this country. An enterprising firm of tea merchants are advertising, in connection with the sale of their tea, that customers can have medical advice and medicine free! Of course a sufficient number of coupons attached to this precious tea are necessary before medical aid can be obtained gratis, but from the advertisement it is obvious that customers can actually have a choice of several medical men, a list, I suppose, being sent for approval. There is something decidedly "rotten in the state of Denmark" when a profession, with its code of etiquette and ethics which is almost hoary with antiquity, is thus openly degraded. Perhaps the disciplinary powers possessed by the General Medical Council will soon put a stop to this glaring breach of etiquette. And if pharmaceutical societies and associations had similar powers, the prostitution of pharmacy would cease, and pharmacists once more be proud of their calling and jealous of its honor.

Are you keeping your books in such a manner that you would not be ashamed to have them turned open to the gaze of practical business men, if an inventory was made necessary of your business?

Are you insured to the full extent of the stock you are carrying, or is it for the same amount of values that you had on hand when you started in business ten years or more ago?

Are you agreeable in your manner toward your help, and always courteous to your customers?

If any of the above fit your case you have several leaks in your business, the stopping of which, or letting alone of same, may either make or break you.—*Trade Magazine.*

To buy well, you must keep posted on prices. To post yourself, study the market reports and price quotations in your weekly drug journal, especially noting the advances and declines. It pays.

3 GOOD SELLERS

VELROSE

SHAVING CREAM
SHAVING STICK
BARBER'S BAR

PAY YOU WELL. PLEASE YOUR CUSTOMERS

ATTRACTIVE COUNTER ARTICLES

Order Sample ½ dozen from your wholesale house to come with next order.
We supply Samples for free distribution with first orders.

THOS. LEEMING & CO.

MONTREAL

FRONT AND BACK VIEW

AMERICAN SILVER TRUSS

The Silver Truss

IS A NEW INVENTION,
NEW IN PRINCIPLE,
NEW IN DESIGN,
NEW IN APPLICATION,
and the MOST PERFECT KNOWN.

The great success of this Truss in holding with comfort all kinds of hernia, whether adults, youths, or infants, all over Canada, the United States, and Europe, is phenomenal. They have been adopted by leading hospitals, surgeons, and rupture specialists of the United States, and by Westminster and Guy's Hospitals, London, Eng. No greater recommendation could be accorded any appliance than its adoption by the physicians and surgeons comprising the staffs of these hospitals, which rank among the largest and best in the world.

MANUFACTURED BY

THE SMITH MANUF'G CO., GALT, ONT.

LITTLE'S PATENT FLUID

NON-POISONOUS

SHEEP DIP AND CATTLE WASH.

For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

☞ 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at $1.00. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.

TRADE C H 6 5 MARK

Little's Soluble Phenyle

DEODORISER & ANTISEPTIC

NEW DISINFECTANT.

FOR UNIVERSAL USE

CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

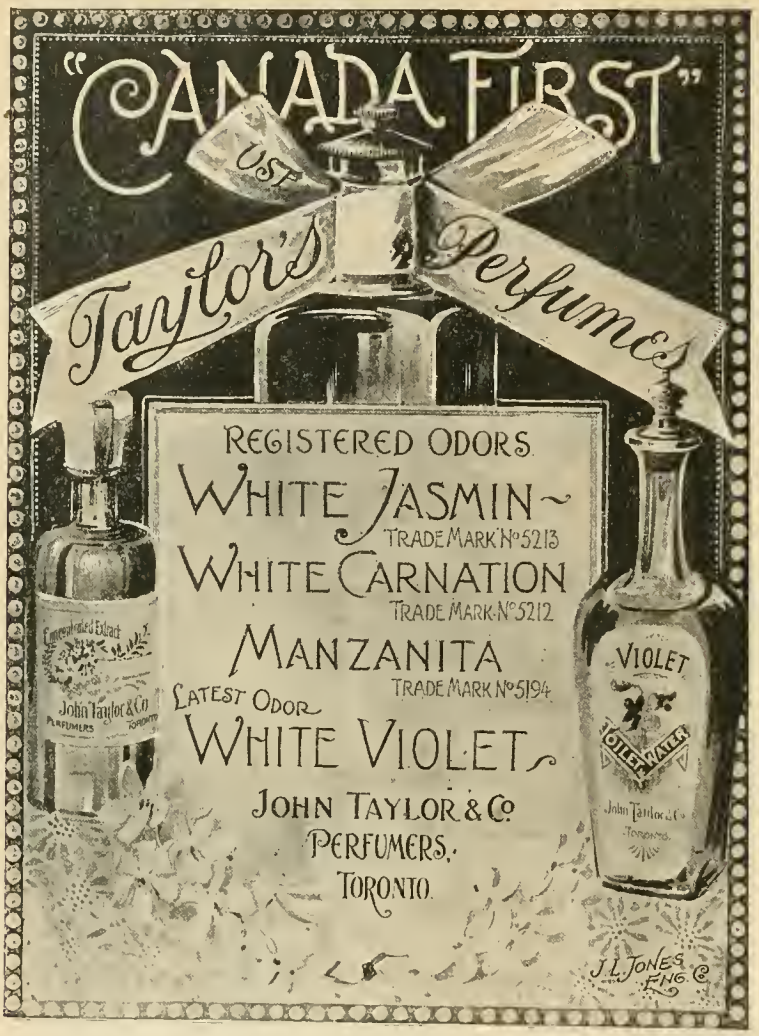
Sold by all Druggists in 25c. and 50c. Bottles, and $1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton, and London, Ont., and Winnipeg, Man.



ONTARIO VACCINE FARM

Pure and Reliable Vaccine Matter always on hand. Orders by mail or otherwise promptly filled.

10 Ivory Points, $1; 5 Ivory Points, 65 cents; single Points, 20 cents. Discount to the trade.

Address all orders—VACCINE FARM,

A. STEWART, M.D. **Palmerston, Ont.**

JOSEPH E. SEAGRAM

Waterloo, Ontario.

MANUFACTURER OF

ALCOHOL

Pure Spirits

Rye and Malt Whiskies

"OLD TIMES" AND "WHITE WHEAT"

Fine Fruit Tablets

ENGLISH FORMULA TABLETS

Have been our specialty and have been a success. Packed in elegant Flint Glass Jars, large glass stopper, the finest package in the Dominion. Also in round jars, similar to English, but made two inches shorter to fit the ordinary shelf. A large variety. List of flavors and prices on application.

G. J. HAMILTON & SONS,

PICTOU, N.S.

PRI-MO LADIES' SYRINGE.
WE ISSUE A PAMPHLET THAT WILL INTEREST YOU.
IT IS USED WITHOUT BED PAN.
PERFECTLY ASEPTIC.
ANATOMICALLY CORRECT.
NOT A WEDGE.
E.J. HUSSEY & CO.
80 John St., New York.
INTRODUCERS NOVELTIES OF MERIT.

	PER DOZ.
No. 1. Nozzle and Shield, with Outlet Tubing . .	$30
No. 2. " " Complete 2-qt. Fountain,	48

DISCOUNT TO TRADE ON APPLICATION.

BEST SYRINGE ON THE MARKET. SOLD BY ALL JOBBERS.

LYMAN, KNOX & CO.

Montreal and Toronto

Agents for Canada.

Taka Diastase.

By Ferdinand Lascar, Ph.Gr.,
Pathologist to the Demilt Dispensary, etc.

In the human system a continued waste takes place which it is necessary to provide for, and to this end man partakes of food which must contain the elements for this purpose. To bring such food products into proper form, so that they can be assimilated and taken up in the system, the digestive organs perform their functions, and these are of a mechanical and chemical order. The food needed is both animal and vegetable in nature, the latter forming by far the greater and more important part. It can truly be said that upon the proper digestion of his food man's health, happiness, and very life depend, and progressive science has fully demonstrated the unerring truth of this. An irregularity or fault in the process of digestion very soon becomes manifest, and dyspepsia, malnutrition, and ill-health follow. As the food man partakes of is twofold, so is the process of digestion a twofold one, animal and nitrogenous foods needing an acid, while vegetable, starchy foods need an alkaline process to bring them into a soluble form ready for assimilation. The general idea about faulty digestion is that the stomach performs its duties improperly. While this, in very many instances, is undoubtedly so, the fact is, nevertheless, that in the greater number of cases of impaired digestion improperly performed processes of other organs are at the bottom of the evil in failing to properly convert the starchy food partaken of.

The changing of amylaceous food into dextrose and maltose is the beginning of digestion. All will have observed that bread, crackers, or potatoes, not being sweet in themselves, very soon become so when masticated and thoroughly mixed with the saliva in the mouth, and that their taste becomes sweeter the longer this is continued. This sweet taste is due to the conversion of the hydrated starch by the action of the saliva upon it, the saliva containing an enzyme called ptyalin, which, by its presence, splits up the starch into soluble products which I will mention later on, and this splitting-up process of the starchy food even continues after it has left the stomach. Animal foods needing the acids which are found in the stomach are digested there, but acids materially interfere with the action of enzymes which cause the conversion of starch, even destroying such action altogether. For this reason it seems practically incorrect to say that the conversion of starch continues after it leaves the mouth; but nature has provided against a too soon interference of acids, because it is now well understood that acid, especially hydrochloric acid, is secreted in the stomach a considerable time after the food has arrived there, and this may be one of the reasons why the converting of starch continues after it has left the mouth.

Since medical science has thoroughly grasped the philosophy of digestion, it has been the aim by artificial means to supply the enzymes which digestion calls for when they do not appear to be present in a sufficient quantity, or are secreted in less potent form by the digestive organs. Science has succeeded fairly well in supplying gastric and pancreatic ferments when nature lags behind; but our success has so far been only a very partial one in supplying starch-converting substances, and for this reason a new and seemingly valuable discovery in this direction at once becomes interesting.

That diastase has an identical action with ptyalin upon starch is a fact long known, and for this reason the diastase contained in malt has been employed for this purpose. Diastase is contained to a lesser or greater extent in the different extracts of malt, and in minute quantities also in fermented malt preparations. In the latter the diastatic action, however, is generally totally destroyed by the acids present. Even in the best extract of malt there is only a limited and variable amount of diastase present; and while the extract of malt will continue to play an important rôle as a dietetic agent, its utility as a starch-converting agent will always remain a limited one. From time to time pure diastase has been offered to the profession, but none has so far proved of a sufficient potency to recommend itself to general use. Great progress in this direction is the discovery of Mr. Takamine, a chemist of no mean ability, who acted as one of the commissioners of Japan at the Cotton Exhibition in New Orleans several years ago. At that time he showed me an extract of malt, as manufactured in Japan, very rich in diastase and nutritive properties, and which I have mentioned in a paper on the diastatic and nutritive properties of malt extracts, published in the December number, 1891, of the *Epitome of Medicine*. In that paper I warned against too great heat in the manufacture of malt extracts, as heat impairs, and is even liable to totally destroy, the diastatic action. The avoiding of all undue heat in preparing diastase may be one of the reasons why the diastase which is now manufactured by Parke, Davis & Co., under Mr. Takamine's discoveries, is so perfect in its action in converting starch into maltose and dextrose. His product is a dry powder similar in appearance to some I received from a reputable German firm years ago, but is vastly superior in potency. Since the receipt of this German preparation I have frequently had occasion to experiment with various diastases, some being named vegetable ptyalin, but in no instance have they come up to the desired standard, and failed to fill the void felt for an enzyme which will accomplish what the enzyme of saliva in a healthy individual does accomplish.

In comparing notes of experiments lately conducted with taka diastase, other available diastases, and different extracts of malt, I find that the claim of the taka diastase that it will convert a hundred times its own weight of starch into a soluble state is well authenticated, for I have succeeded in converting even fifty per cent. more of starch than is claimed for it. Another point in favor of taka diastase above other similar products is the quickness of its action upon starch, for the action is almost instantaneous. To convert one hundred parts of starch into a soluble state by the action of one part of taka diastase, under proper conditions, it takes only four minutes until neither iodine test nor the microscope can detect unconverted starch. The product of converted starch with Mr. Takamine's diastase is, to a great extent, maltose. Compared with the time required by the best extract of malt to convert starch, this is certainly an excellent showing, for it took the best malt extract between seven and eight minutes to convert its own weight of starch into a soluble state, while with some other extracts of malt it took fifteen, twenty, and thirty minutes to partially accomplish this end. Tests with Fehling's solution to ascertain in the converted starch products the amount of contained sugar therein were equally favorable to taka diastase.

In converting starch into a soluble state by the action of diastase, the rearranging of the molecules of starch is understood to be as follows:

Starch $(C_{12}H_{20}O_{10})$ 10 plus water, H_2O, are first formed into erythro-dextrose and maltose.

$(C_{12}H_{20}O_{10})_9$ and $C_{12}H_{22}O_{11}$

By the continued action of diastase further hydration of the erythro-dextrose takes place.

The erythro-dextrose further splits up into erythro-dextrous-β and maltose, the ultimate result being a small amount of dextrin (anchro-dextrose) and eight or nine equivalents of maltose. Since Leuch's discovery of the specific starch-converting property of saliva and its ptyaline, we have lacked an agent of sufficient potency to accomplish what good healthy saliva does, and, for the first time, we find in taka diastase a substitute of undoubted worth, which, even in the presence of a minute quantity of acid, does not cease to be potent. The ptyaline in saliva is present there in a neutral or weak alkaline state, and for this reason it suggests itself that diastase, being an analogue with the former, acts also at its best in such a state, and is incompatible with acids. I employed, in the greater number of my experiments with diastase, carefully washed arrow-root—a perfectly bland and neutral starch; but I found that starches giving a slight acid reaction on blue litmus were equally well converted by taka diastase. In testing diastase as to its potency, I would recommend that the iodine as well as the copper tests be employed, and that undue employment of heat under all circumstances should be guarded against, as heat, as already mentioned, destroys the action of diastase.

Taka diastase, being a dry powder, tasteless, and of no perceptible odor, can be given in very small bulk, and for this reason I think it will prove itself of value in infant feeding, where it is desirable to give starch-containing foods, provided said food would easily dissolve, and the infant's saliva could be relied upon to perform that function. That the new diastase is destined to become a favorite with the profession I have no doubt, having acquainted myself with its potency in converting starch in a minimum of time into a form ready for absorption by the system, and I think it will be found the very remedy for which we have waited so long.

The Pumice-Stone Industry of the Lipari Islands.

So extensive are the deposits of pumice in the island of Lipari that, according to a recent report of Mr. Norman Douglass, the supply is practically inexhaustible. It is said that good pumice is not so abundantly found as formerly, but this impression may be attributed to the fact that customers have of recent years become more fastidious, and not so easily satisfied with bad stone. That washed up by the sea is hardly ever collected nowadays. Pumice itself is a trachytic lava, rendered light and scoriaceous by the escape of gases, and every gradation can be traced from this condition to the heavy vitreous matter of similar composition known as obsidian. Good pumice contains 74 per cent. of silica, 12 per cent. of alumina, 5 per cent. of potash, 5 per cent. of soda, 2 per cent. of oxide of iron, and 2 per cent. of water, lime, etc. Most of the volcanoes of Lipari have ejected pumaceous rocks at some period or other, but the best stone of all is the product of one mountain, Monte Chirica, with its accessory craters, Monte Pelato and Forgia Vecchia. The district containing the deposit lies in the north-east of the island, and covers an area of about three square miles. The mineral is excavated in various parts of it—in the plateau of Castagna, near the seashore of Acqua Calda, and at one or two isolated points. To this end caves or burrows are dug into the layers of denuded lapilli or ashes that have gradually covered the pumice. They occasionally strike the mineral near the surface; at other times a thick mantle of white substance must first be pierced. Digging in such circumstances affords no difficulties. These caves are lighted at intervals by small terra-cotta lamps of antique form, and are so narrow that two men can hardly pass. The deficiency of air is soon felt. Sometimes when a stratum of pumice has been reached radiating galleries are constructed to gain a larger supply of pumice out of the soft material in which it lies imbedded. Some caves ascend, others descend. It is often a matter of speculation how soon pumice will be reached, so that many tunnels are abandoned, while others are worked for long periods. The output may be large one day and almost exhausted the next, or the quality of the stone may change. It has been observed that certain localities produce certain qualities; thus some of the best pumice comes from Acqua Calda and Monte Pelato; an inferior quality, known as *alessandrina*, is found at Castagna. The number of caves actually in working has been estimated at 250, but this gives no idea of the number of workmen, as some caves can accommodate only three or four, others as many as fifteen, men. The number of cave workmen also fluctuates, according to their personal requirements and the season of the year, while the number of those employed in the workshops of the merchants at Lipari and Canneto depends upon the needs of the latter. It has been calculated that there are about 1,000 hands employed altogether, 600 of whom are engaged in extracting the mineral. Pumice is brought to the surface of the earth in large blocks or in baskets, and is carried thus either direct to the village of Canneto or to the nearest seashore, to be taken there in boats. About one-fourth subsequently reaches Lipari by sea, to be manipulated there. It is generally stored in the sheds of the merchants, and unless they are in a hurry to dispose of their stock it is allowed a month to get thoroughly dry; this reduces the weight and shows off the quality. Large blocks, weighing a stone and upwards, are allowed to crumble, according to their cleavage, into so-called *lisconi*, and all the pumice is then sorted, according to its size, into *grosse*, *correnti*, and *pezzame*—that is, into large, medium, and small pieces. The quality is primarily a matter of texture. As pumice is useful for polishing purposes in various trades, an essential condition is a certain homogeneity of structure and freedom from included crystals, etc. The stone must be neither too brittle nor too hard, and it is in these respects that the Lipari pumice surpasses that of other volcanic regions. After it has been divided, according to its size, the large stones (*grosse*) are again sorted in three superior qualities, called *fiore*, *quasi fiore*, and *mordente*. These are never filed. After they have been selected, the remainder of the *grosse* are filed by hand, in order to remove asperities of surface, and to test whether the stone is not too friable for use. They are then reclassified into first, second, and third pick (*bianco*, *dubbisoe*, and *neve*). Large pieces of inferior pumice, known as *rotonde*, are never trimmed Besides this, there is an entirely different variety, so-called *alessandrina*, which is cut with hatchets into brick-shaped pieces, and used for smoothing oilcloth, and a heavy dark stone, *bastardone* (always trimmed), as well as many less important varieties. The *correnti* — commercially termed "sorts"—contain all varieties, and are generally exported as they are; the *pezzame* is usually, but not always, ground to a powder of more ten different degrees of fineness, according to the work for which it is required. There are between twenty and thirty merchants engaged in the pumice-stone trade in the island of Lipari, the majority of whom live in the village of Canneto and are of Italian nationality. The better kinds of pumice are packed singly in paper and in barrels of different sizes, made at Lipari. Crates are also used, and the *pezzame* and powder are usually exported in second-hand Indian grain sacks. Formerly all the Lipari stone found its way to Leghorn, where the merchants sorted it and packed it for shipment, securing large profits. There is still a considerable quantity of *pezzame* ground there, as Lipari possesses only three mills; but the export has been gradually discontinued, and the dealers of the island now communicate direct with the consumers. The work in the *barache*, or workshops of the merchants—filing, etc.—is mostly done by women, who receive daily wages of about eighty centimes. As regards the destination of pumice, the French market demands the best stone, and differs from the British in not accepting filed material. In point of quantity imported, England probably stands first, then France and America, with Austria, Germany, and Belgium following. Large lumps, known as *testoni*, are sent to Trieste, to be ground to powder there. Almost all the *alessandrina* finds its way to England and the United States. A good deal of inferior pumice is also sent to St. Petersburg and Odessa. —*Oils, Colors, and Drysalteries.*

Substitute for Natural Sulphuretted Waters.

The fact that natural sulphuretted waters do not keep and travel well, losing their free sulphuretted hydrogen, and therefore their efficacy, has suggested the expedient of using a solution of monosulphide of sodium in diluted glycerin to serve as a "concentrated" water, which, when suitably diluted, is stated to possess all the efficacy of the natural sulphur spring (*Rev. Inter. de Méd. et Chirurg.*). The formula of this solution is: Monosulphide of sodium, 10 parts; distilled water, 40 parts; glycerin, 150 parts. Dissolve the sulphide in the water with a gentle heat and mix the solution at once with the glycerin. This solution keeps well and affords a sulphuretted water by mixing a teaspoonful with about 90 fluid ounces of water, previously boiled to expel the dissolved air, and cooled. A teaspoonful added to 9½ fluid ounces of syrup forms a convenient and portable form, of which half a teaspoonful in milk or water affords a ready means of administering the required dose. Obviously this preparation is incompatible with free acids. These should be neutralized with a little alkali before adding the sulphide solution.—*Pharmaceutical Journal.*

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This wheel, retailed in Canada at the American price, pays enterprising Agents a fair commission, while the construction of the machine and the makers' guarantee make it a pleasure to handle it.

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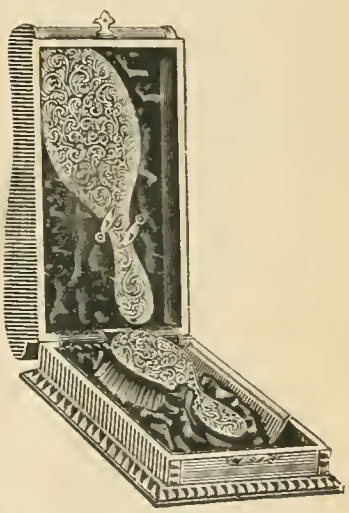
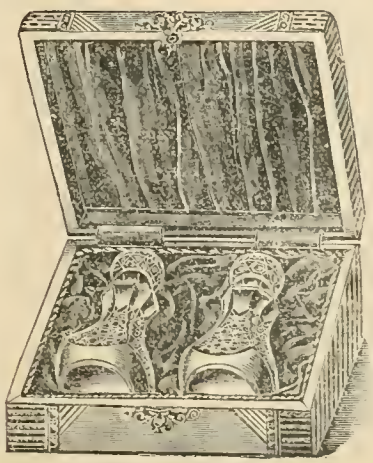
SPECIAL DRIVES IN Plush and Celluloid Cased Goods THIS MONTH





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In Pint Bottles..... .....$5 00 per doz.
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With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

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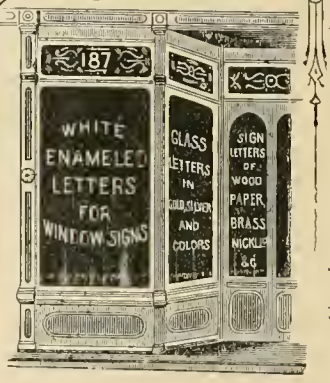
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Ozone Specific is a valuable non-toxic, non-irritating antiseptic for either internal or external use. Our **Ozone,** concentrated form, is the most powerful blood Purifier and germicide ever produced, and will be found a specific in all forms of Asthma, Bronchitis, Whooping Cough, Croup, Measles, or Diphtheria. For Catarrhal Troubles it will prove invaluable as a tonic and constitutional remedy, and is especially efficient in preventing or combating fermentation of food in the stomach, breaking up the worst forms of Dyspepsia and Sour Stomach.

For dressing Ulcerations of all kinds, preventing suppuration, and assisting towards rapid granulation and healing, **Ozone** has no equal.

Ozone is also used as a gargle for all manner of Throat Diseases; destroying all fermentation of the tissues brought forth by impregnation of disease germs. No germ life can exist where it is used.

All Druggists should keep this remedy, as it will prove a genuine friend to their customers.

Physicians owe it to themselves to try it.

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What We Are.

The engraving which we present here shows the continent of North America, and the exact proportion of it included in Canada. Amongst many outsiders there has long been a strange misconception as to the size and situation of this country, and the most ridiculous statements have, from time to time, appeared in the press.

In England it has become an almost universal practice to designate the United States of America as "America," whilst, it will be observed, that country occupies less than one-half of this continent, although we must concede to it both extent of territory and vastness of population.

Canada covers a territory of 3,458,400 square miles, being 500,000 square miles

larger than the United States, nearly thirty times as large as Great Britain and Ireland, and lacks only 237,000 square miles of being as large as the whole continent of Europe.

In pharmaceutical matters, we believe Canada quite holds her own with other countries. The eight provinces which constitute our Dominion have each their own pharmacy laws, being, in most essential points, identical with each other, and, in all, the student is required to pass his examination before a council of the pharmaceutical association of the province. The standard, in all cases, is a high one, and our colleges of pharmacy lose nothing in comparison with those of our neighbors or of Europe.

In pharmaceutical journalism, modesty forbids our saying too much of ourselves, or of making any comparisons; but the fact that the CANADIAN DRUGGIST covers this vast extent of territory, reaching the intelligent and trained constituency of pharmacists within its boundary, shows the importance of its mission and the value of its circulation amongst those with whom it is so intimately in touch.

Safeguards Against Adulteration.

Adulteration is described by the authors of a recently-published work on the law and chemistry of food and drugs as a fine art which will soon be an exact science, those who practise it entering upon their work with a precise knowledge of the end they have in view, and with all that science and skill can do to help them in attaining that end. There may be no intention to defraud; the adulterant being sometimes added in infinitesimal proportions to act as a preservative, as in the case of boric or salicylic acid, or to meet the exigencies of trade, as when butter or peas are artificially colored. Accidental admixture may also occur through lack of care in manufacturing or storing. In any case, by the sale of such goods an offence is committed in the eyes of the law, and it is of the greatest importance to honest traders that they should adopt such precautions as will enable them to avoid unwittingly committing offences against the laws dealing with the subject. This is the more necessary as the effects of a conviction may be exceedingly injurious, and even fatal, to a man's business prospects.

There is much force in the contention that competition and the mania for cheapness, regardless of real value, are at the bottom of the evil. A dishonest tradesman may be attracted, or a weak one tempted, by the facility with which profits may be increased by a possibly harmless addition to some comparatively expensive article. Even more insidious, however, in these days of "cutting" prices and small profits, is the temptation to buy wholesale what is "cheap," that is to say, low-priced, and retail it to customers at the price of a genuine article, irrespective of the fact that it is not known to be such. Bargains of this description are quite justifiable if the retail dealer examines what he has purchased and proved it to be what it is represented as being. On the other hand, if he finds himself the possessor of an inferior article, he may either offer it as such, at its true value, or utilize it in some legitimate manner.

But there can be no possible excuse for the sale of such an imperfect article as a perfect one. The sale would be a deliberate fraud if effected after examination, and if no examination took place the carelessness that allowed an unfair profit to be gained would be criminal in a lesser degree only. Pharmacists in particular should carefully protect themselves against the risk of appearing careless in respect of the purity of all medicines passing through their hands. Nothing can palliate the offence of dealing in impure and ineffective drugs and chemicals because they are low-priced, not even the plea that otherwise it will be impossible to compete with a neighboring grocer or general store. The means at the pharmacist's command are such that he can ensure the purity and quality of everything of a medicinal nature he deals in, and he may thus be enabled at times to satisfy himself that something offered at an unusually low rate is really genuine and worth taking into stock. But, above all things, he should decline to prostitute himself and his art for gain. Recognition of integrity may be slow in coming, and honesty of purpose may seem of little avail, but the good of humanity will, nevertheless, be served, and conpensation, though perhaps long-delayed, cannot fail to come in the end.
—*Pharmaceutical Journal.*

ADESOL.—Adesol is the name suggested by Mr. Patein for a succedaneum of steresol. Adesol is less viscous and more fluid than steresol, and consequently it is more easily applied. Besides this, it evaporates more rapidly, and it does not contain carbolic acid. Its formula is as follows:

Gum copal	350 parts.
Benzoin	30 "
Balsam of tolu	30 "
Ether	1000 "
Oil of thyme	20 "
Alpha-naphthol	3 "

—*National Druggist.*

Bioxide of sodium, treated with an alcoholic solution of hydrochloric acid, gives a highly oxygenous substance (known as trioxygen), which makes a valuable bleaching agent. Heated to 100° C. it gives off oxygen; dissolved in water, a highly oxygenated liquid is obtained.

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

OCTOBER 15TH, 1895.

Transient Traders.

A correspondent from one of our smaller towns gives expression in our columns this month to a grievance from which dealers in all places suffer more or less. The travelling patent medicine vendor, with or without the accompanying band of "high-class musical artists," is a well-known figure in the majority of towns, and the injury done to the drug trade in the locality in which he holds forth can only be reckoned by a close observer of his business.

There is a law on the statute book of Ontario—whether that same law prevails in the other provinces we are not in a position at present to say—which empowers every municipality to impose a tax on all transient traders; that is, on all persons doing business in a locality where they are not residents, or do not come under the Assessment Act rendering them liable for a proportionate share of taxes of that municipality. In a large number of towns, by-laws have been passed naming a tax of from five to ten dollars per day—in the majority of cases the ten dollars is charged—on all such transient traders, but it is very often a dead letter, as "what is everybody's business is nobody's business," and the by-law remains unenforced. As our correspondent very correctly says, "the fault is our own," and it is the duty of every one engaged in business to see that his rights are protected, and that in every case this law should be enforced wherever the necessary by-law has been passed, and, where it has not, it should be seen to at once that the councils of their respective municipalities take action and pass such a by-law and see it strictly observed. It certainly is a hardship that men who have large interests at stake, and are contributors to the revenues necessary for the general requirements of their municipality, should have their business rights infringed upon in such a manner.

And this does not only apply to the vendor of so-called patent medicines, but to others who are equally liable under the Act. For instance, there is the peripatetic "optician," who, if he is not a house-to-house visitor or a market-square vendor, is probably one who carries a stock of spectacles and persuades some guileless druggist or jeweler to allow him the use of his store for the purpose of disposing of his own wares, allowing the occupant a small percentage for the use of his name and his store, in many cases leaving him "a sadder but a wiser man" when the "patients" return with a demand for refund of money as the glasses "did not suit." This matter is one that directly concerns a large majority of our readers, and one that united action by druggists can remedy, if they will but act in it.

A Questionable Experiment.

Some business men are, apparently, very short-sighted, as evidenced by the way in which they endeavor to draw trade.

One of the most prevailing instances of this is the endeavor, by cutting into regular prices, to undersell others, and to induce, if possible, their customers to transfer their patronage. It is quite unreasonable to imagine that any man will sit quietly by and see his business cut into in this manner, and he will, in every instance, meet the "cutter" on his own ground, and, the chances are, undersell him. Thus the man who commences the cutting, instead of drawing from his competitors, is only lessening the profits of the competitor, and runs the risk, and an extremely likely one, of causing a feeling of distrust amongst those whom he has tried to entice to his place of business, for every druggist well knows that a feeling of distrust has sprung up and is permeating the masses, that the "cutter" is one who is not above the baneful habit of substitution, or who would sell an inferior article. To have the public confidence shaken as to your business methods means a loss of trade and consequent loss of profits, and it, therefore, appears to us a very questionable experiment for any druggist; and we regret to see that, in one of our western cities, a druggist, in commencing a new business, has used the "cut-rate" as his "drawing card," in hopes, evidently, of securing a share of the trade. It has already led to a general reduction in prices, and a feeling of anything but good will towards the offender. The venture is anything but a creditable one, and the result means loss for many, while the public will not think one whit the more of the originator of it.

In the treatment of bunions, phosphorized oil is claimed to be very well adapted. It is rubbed gently over the part twice a day, and acts by causing absorption.

The Care of Stock—Forgotten Corners.

Every pharmacist too often finds, while searching for some article called for, that he has made a discovery. Not such a wonderful one, perhaps, but one that is new to him—some article, yes, often many articles, stowed away in a forgotten corner are found. May be half a dozen of some nostrum to be sold on commission, or, what is worse, a fraction of a gross of a worthless patent medicine which has been foisted on the druggist by some salesman eloquent in his own interest. It has always been a source of surprise to the writer how a druggist, possessing the least grain of business ability, would take quantities of some untried, unsaleable, and unknown remedy, just because he receives a premium in the shape of advertising cards, a thermometer that won't work, or a show card with a name branded on the frame—(we confess, however, to advertising firms, that donations of good unbranded picture frames, such as the druggist can utilize at home, are always acceptable). Back to our subject again. If you have any money to spare, pay it on account; or if that is all right, which we sincerely hope it is, these hard times, put it into some standard paying stock. Never take up a side line suddenly, and without thought, that involves much of an expenditure, but rather increase some part of the business that shows hopeful signs. What the writer means to convey is this—that a business man is speculating with the odds of the game against him when he purchases quantities of some article, whose sale is doubtful, instead of investing in standard goods that are sure to leave the house with a profit before the year is over. It is a very nice feeling, when dull times come, for the pharmacist to find that he has some saleable goods to draw from. The fact must not be forgotten that we open our doors in the morning to sell goods, and not to make the store a dumping ground for somebody else's unsaleable rubbish. You must continually add new goods, however, for your customers get tired of the same old toilet articles, perfumes, and other wares. You have to sacrifice the old, faded things—and people dearly love a bargain—for you must get rid of them. The public appreciate new things, and a few well-chosen and well-bought articles not only add to the good stock, but freshen up the old, that has been stored away for so long in one of the forgotten corners.—*Frank T. Green, in Pacific Druggist.*

Saline Liquor Ergotæ.—Bernegau and Burkhardt suggest the addition of common salt to liquor ergotæ, whereby a preparation less alcoholic than usual may be obtained. Five per cent. of common salt is added to the powdered ergot, and the menstruum is a mixture of one part of S. V. R. and four parts of water—the liquor to be made by the usual percolation process.

Winter Wants

To the Trade.—We beg to advise that the following important lines cannot be shipped in winter **except per Express.** We respectfully suggest, in order to save you this extra expense, that you look up your stock of these lines, and order sufficient Winter supplies **NOW.**

Wyeth's Liquid Extract of Malt.
" Wine of Tar.
" Dialyzed Iron.
Franz Josef Mineral Water.
Levico Arsenical Water.
Rosbach Mineral Water.
Pond's Extract (see below).

Your valued commands for any of the above will be much appreciated by

Yours very truly,

DAVIS & LAWRENCE CO'Y (Limited)

MONTREAL, October, 1895.

Pond's Extract of Witch Hazel

WITH a view to serving the Drug Trade more conveniently, the POND'S EXTRACT COMPANY have recently appointed us their General Agents for Canada, and we have pleasure in acquainting the Trade with what we are able to do for them upon this preparation.

1st—The handsome framed advertising mirror, we will give with first order for 2 dozen.

2nd—With orders of 4 dozen we can offer in addition, at present, 1 dozen 2 oz. *facsimiles* of large bottle.

3rd—We send with each order attractive pictorial pamphlets, flag circulars, and card.

Besides the foregoing advertising, the article is being extensively advertised in the Canadian papers.

A new scale of prices has been prepared, thus:—
Small, 1 dozen, and less than 4 dozen, $4.00 per dozen.
Medium, 1 dozen, and less than 2 dozen, $8.00 per dozen.
And when ordered in original cases of 4 dozen, small, $3.80 per dozen; or 2 dozen, medium, $7.60 per dozen.

Subject to Cash Discount of 5%.

Davis & Lawrence Co'y (Ltd.)
MONTREAL

We make close estimates

On preparing private

℞

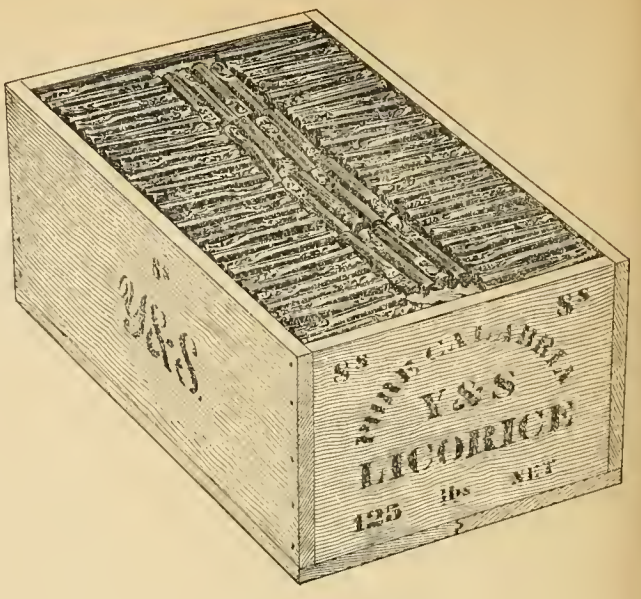
preparations, and cordially invite correspondence on the subject.

All formulæ submitted to us are considered strictly confidential, the private property of our correspondents, and are guarded so with scrupulous care.

Our facilities for manufacturing and finishing special preparations are unequalled, for, in addition to our well-equipped manufacturing and finishing departments, we possess complete and extensive printing, binding, and paper box-making establishments, and are thus able to turn out first-class work at the lowest cost. We are in a position to prepare any private formulæ put up in the form of a Fluid Extract, Solid Extract, Elixir, Wine, Syrup, Glycerole Capsule, Cachet, Perle, Pill (sugar, gelatine pearl, or silver-coated), Lozenge (hand-cut or compressed), Tablet Triturate, Compressed Tablet, Effervescing Granular Salt, etc., as well as preparations in the form of Sarsaparillas, Cough Syrups, Liniments, Veterinary Remedies, Toilet Preparations, etc. We charge nothing for making an estimate on any preparation, but are pleased to do so, and trust we may be favored with formulæ for the purpose.

Frederick Stearns & Co.
MANUFACTURING PHARMACISTS
Private Formula Department **WINDSOR, ONT.**

Retail Druggists



WE put up our Y & S Licorice in cases of 125, 50 and 25 lbs. bulk (loose, in leaves), 4's, 6's, 8's, 12's, and 16's to pound. Will sell rapidly if displayed prominently in your show windows, and will insure you large profits.

WE ARE ALSO MANUFACTURERS OF

Acme Licorice Pellets ∴∴∴ Y & S Licorice Lozenges ∴∴∴

Tar Licorice and Tolu Wafers ..and.. Pure Penny Stick

If you cannot get the above at your jobbers, please address us as below:

YOUNG & SMYLIE

Brooklyn, N.Y., U.S.A.

COUGH DROPS

NONE BETTER

PUT up in handsome five-pound canisters, with glass front, showing contents.

USE B.F.P. COUGH DROPS

NONE SO GOOD

THEY afford instantaneous relief in all cases of Coughs, Colds, or Sore Throats.

Will sell well during "between-seasons" weather

Toronto Biscuit and Confectionery Co. = = Toronto

What the Pharmacist Should Know about Certain Poison Accidents.

By J. C. Falk, M.D., Ph.G., St. Louis.

PHARMACISTS ARE FREQUENTLY CALLED UPON.

Every retail druggist has the experience of being called upon to render the first assistance in cases of poisoning accidental or otherwise. In most instances the conditions are such as require prompt and proper measures. A physician may not be had at once, and the pharmacist, by reason of his intimate association with poisons, is expected by the public to act with precision in these emergencies. A human life saved may be the reward of the pharmacist when he responds quickly and intelligently in poison accidents.

HE SHOULD BE FAMILIAR WITH THE POISONS.

The competent druggist should be thoroughly familiar with the physical properties of the poisons, their appearance, odor, taste, and solubility. He ought to be well posted in the chemistry of the important poisons, that he may know the different chemical combinations which can be formed with them whereby they may be rendered insoluble, less soluble, or difficult of absorption by the human system.

To be further equipped for these emergencies, he must inform himself on the more prominent physiological properties* of the common poisons. This knowledge will come in good stead in those instances when the toxic agent is unknown, and an efficient antidotal treatment cannot be instituted until its nature is determined.

SEND FOR A DOCTOR, AND THEN BEGIN TREATMENT.

When a poisoning case presents itself to the pharmacist, his first duty is to send for the nearest competent physician; then, in order that no valuable time be lost, he should institute such treatment as will best meet the requirements until the doctor's arrival, or until the patient is out of danger.

LEARN WHAT POISON YOU HAVE TO DEAL WITH.

It is necessary in the beginning to know what poison has been taken, and the time that has elapsed since it was swallowed.

If the patient is conscious, this information may, or may not, be obtained from him. In attempts at suicide, the person will often obstinately refuse to divulge anything. In accidents, and in cases where the toxic agent has been administered by another person, he may not know what was taken Under these circumstances, it will, at times, require the exercise of great care and good judgment to arrive at a proper conclusion.

* The physiological properties of a drug are the noticeable effects a drug produces upon the healthy system.

The Mouth.—Make a careful inspection of the mouth to see if no traces of the poison are left there. The lips, tongue, or mouth may show stains that are characteristic, as, for instance, the discolorations caused by the strong mineral acids. Sulphuric acid causes white stains, which, later on, if the burns are very severe, turn black; carbolic acid, whitish spots; and nitric acid, yellow stains.

The Breath.—Observe the breath carefully—some drugs will be detected by their odor.

The Vomitus.—If he has vomited, examine the ejected material closely for traces of the poison. The color of Paris green, arsenious acid, the glistening particles from the wing cases of cantharides, are examples of poisons that would be suggested by their appearance, while the characteristic odors of carbolic acid and chloroform will betray their presence in the vomitus.

Preserve the Vomitus.—It is well in some cases to save the vomited material for future examination, this being especially desirable when there is reason to suspect a crime.

Watch the Pupil of the Eye.—Some poisons have physiological effects that aid in making a diagnosis; for example, the changes the pupil (the dark spot in the middle of eye) undergoes under the influence of opium and belladonna. In opium poisoning we find the pupil very contracted, sometimes as small as the end of a darning needle. With belladonna the opposite effect is produced, the pupil becoming very large—it may be so dilated as to include the entire dark portion of the eyeball.

POISONOUS FOODS.

Decayed Meats, etc.—When animal foods undergo decomposition, there are formed various proximate principles, some of which have poisonous properties. A number of these toxic compounds have been isolated by chemists, and are known to be products of microbic or germ growth in the putrefying food stuff.

They are called ptomaines. These ptomaines in chemical behavior resemble the vegetable alkaloids, and their physiological effects are, in many instances, very much like the alkaloidal poisons. Some of the ptomaines cause poisoning symptoms that are difficult to differentiate from morphine narcosis; others, again, have effects that are hard to distinguish from strychnine; hence it not infrequently happens that cases of sickness and death supposed to be due to one of the common poisons are, in reality, caused by the eating of spoiled meat, fish, etc.

Among the foods that are especially prone to decomposition of a dangerous character are canned meats and fish, fish not canned, sausages, and cheese.

The treatment for these poison accidents will be found below (antidote No. 20).

POISON MUSHROOMS.

Among the large varieties of mushrooms, or agarics, there are some poisonous as well as edible species. To the inexperienced, the harmful sorts are difficult to distinguish from the innocuous, hence there are frequent accidents from eating of this fungus.

As a high temperature destroys the toxic principle in the poison mushroom, thoroughly boiling them will render the consumption of mushrooms safe when there is some doubt as to their nature.

The treatment for mushroom poisoning is given below (antidote No. 21).

GENERAL RULES FOR THE TREATMENT OF POISONING.

First.—Get rid of the poison that is still in the stomach.

Second.—Give the proper antidote for that portion of the poison which has already passed beyond the stomach, and for whatever may be absorbed into the system.

Third.—Endeavor to keep the patient alive with stimulants, and other appropriate measures, until the system has eliminated the poison.

HOW TO CAUSE VOMITING.

The first rule is generally best carried out by emetics.

Ground mustard, one or two tablespoonfuls mixed with a cup of water, followed by large draughts of warm water, is a good and easily obtained emetic. Powdered ipecac, one drachm alone, or combined with thirty grains sulphate of zinc, in a cup of water, is also very efficient.

In inducing vomiting, always give lukewarm water freely, as it serves to dilute contents of the stomach, rendering them more fluid, and thereby makes it easier to empty that organ.

Vomiting may be hastened by tickling the throat. This is best done by pushing a finger down the throat and moving it about at the root of the tongue.

Apomorphine as an Emetic.—Hydrochlorate of apomorphine is a very good emetic, especially if given by hypodermic injection. One-twelfth or one-fifteenth grain of the salt dissolved in about fifteen minims of distilled water, injected beneath the skin of the arm, will, in a few minutes (sometimes in less than one minute), produce free emesis, even where other remedies have failed to act. This method is especially useful when the patient is unconscious and unable to swallow, or is conscious and successfully resists all attempts to force anything down his throat.

The Stomach Pump.—The stomach pump, or tube, is, in many instances, the only efficient means for cleaning out the stomach; but the pharmacist is not usually supplied with the necessary apparatus and is not familiar with its use, so that procedure must be left to the physician.

The second rule includes the special treatment for each poison, as given in the antidotes in this article below.

The third rule requires the adaptation of various measures tending to prolong life while nature's processes are expelling the poison from the body. Generally stimulation, internal and external, is required.

Internal stimulation is produced by the various drugs classed as cardiac stimulants (such as alcohol, in the form of whisky, brandy, and champagne), strong coffee or tea, ammonia, digitalis, etc.

External stimulation is brought about by increasing the circulation of the blood in the skin. Friction on the extremities and body with the hands, or aided by a rough towel, answers well. This may be made more active by rubbing the skin with some irritating substance like mustard, ginger, or capsicum. External heat, applied by hot blankets, hot water bottles, etc., is also an aid to stimulation.

ARTIFICIAL RESPIRATION.

Artificial respiration is a valuable aid in prolonging life in many poisoning cases, and it is especially necessary in the treatment of narcotic toxic agents like morphine.

The following is a good way of applying it:

Place the patient on his back on the floor; kneel in front of him, grasp both arms at the elbow and raise them up and back until they are stretched out above his head, parallel with the body. Then bring them down again to the side of the body, at the same time pressing them against the chest so as to compress it by pushing in the ribs. This movement will force the air out of the lungs. Now raise the arms again, as before, and the chest will expand, drawing in fresh air. Repeat these movements regularly, at the rate of about fifteen or twenty times per minute. Meanwhile have another person apply heat and friction to the extremities.

Do not give up hope too soon, but persist in the artificial breathing for a half or one hour.

It is quite surprising, at times, to see how an apparently dead patient will suddenly begin to breathe, and finally revive under this forced respiration.

A SUMMARY OF TREATMENT FOR POISONING.

Below is given, briefly, the treatment for the more important poisons. In many poisons the treatment is a general one; hence it is found convenient to group members together under one antidote. Accompanying the series of antidotes is an index of the poisons which will serve to make the finding of the proper treatment more expeditious:

Antidote 1: Arsenic. Arsenious Acid; "Rough on Rats" (arsenic); Cobalt (arsenical fly poison).

Induce vomiting with mustard, ipecac, and zinc sulphate, or apomorphine hypodermically, as under above heading, "How to Cause Vomiting."

After thorough and repeated emesis, give hydrated oxide of iron, United States Pharmacopœia, three or four ounces at once, and a tablespoonful every five minutes afterwards.

The ferric hydrate can be made hurriedly by mixing either tincture chloride of iron, solution chloride of iron, solution tersulphate of iron, or Monsell's solution with water of ammonia. After the resulting precipitate has settled, pour off the clear liquid and mix considerable water with the sediment, which latter, when it has again deposited, is separated by decanting the clear, supernatent solution. This sediment of ferric hydrate may be given as above directed.

Later give whites of eggs mixed with water and olive oil.

Antidote 2: Morphine. Opium.

Promote vomiting with mustard, ipecac, and sulphate of zinc, or apomorphine hypodermically, as given under above heading: "How to Cause Vomiting."

When the stomach is thoroughly emptied, give large draughts of strong black coffee. It may be well, in most cases, to give a hypodermic injection of one-fiftieth grain of atropine, the physiological antidote to morphine.

Keep the patient awake at all hazards; walk him about, slap with wet towels, shout in his ears, and use similar measures to prevent his going to sleep.

If patient stops breathing, or breathes faintly, use artificial respiration persistently, as in the directions given under the heading: "Artificial Respiration."

Antidote 3: Acids. Sulphuric; Hydrochloric; Nitric; Nitro-hydrochloric; Acetic.

Do not give any emetic! Neutralize the acid with calcined magnesia, liquor soda, liquor potassæ, or lime water, either of which must be largely diluted.

Later give freely of olive oil, or whites of eggs.

Antidote 4: Oxalic Acid. Salts of Oxalic Acid; Salts of Sorrel.

Do *not* give liquor potassæ or liquor soda.

First give chalk or common whiting mixed with water; then, in a few minutes, cause vomiting with mustard. After vomiting, let patient partake freely of whites of eggs, or olive oil.

Antidote 5: Carbolic Acid. (Phenol.)

Give one ounce sodium sulphate (Glauber's salt) dissolved in a cup of water. Then try to induce vomiting with mustard or ipecac. As these emetics sometimes fail to act because of the benumbing effect of carbolic acid upon the stomach, it may be best to give apomorphine hypodermically (one-twelfth grain). Give more Glauber's salt after vomiting ceases.

Antidote 6: Caustic Alkalies of Potash and Soda; Concentrated Lye.

Give vinegar, lemon juice, or citric acid, freely diluted with water. Then give large draughts of warm water, followed by olive oil, whites of eggs, or gum arabic water.

Antidote 7: Ammonia Gas. Water of Ammonia.

If inhaled, let the patient breathe the fumes of vinegar, or acetic acid. If swallowed, treat as in antidote No. 6 for the other alkalies.

Antidote 8: Chloral Hydrate. Ether.

Keep patient lying down and let him have plenty of fresh air. Induce vomiting with mustard, ipecac, and zinc sulphate, or with apomorphine hypodermically, as given under the heading: "How to Cause Vomiting." Keep him from going to sleep by slapping, shouting in ears, etc., but do not walk the person around much because of the danger of heart failure. Stimulate with whisky internally, and friction and heat externally. If breathing becomes feeble, apply artificial respiration as given in the directions under heading: "Artificial Respiration."

Antidote 9: Chloroform.

If swallowed, treat as in antidote No. 8 for chloral. If inhaled, have patient's head lower than the body by raising the foot of table or bed on which he lies. Admit fresh air freely. Let him inhale a few drops of nitrite of amyl. Apply heat and friction to extremities. If necessary, use artificial respiration as given in directions under heading: "Artificial Respiration."

Antidote 10: Aconite; Calabar Bean; Conium; Cotton Root; Digitalis; Ergot; Eserine; Gelsemium; Hyoscyamus; Jaborandi; Lobelia; Physostigma; Pilocarpus; Santonin; Stramonium; Strophanthus; Tobacco; Veratrine; Veratrum Viride.

Give emetic of mustard, ipecac, and sulphate of zinc, or of morphine hypodermically, as in directions under heading: "How to Cause Vomiting."

When stomach is about emptied, give strong black coffee mixed with powdered charcoal and tannic acid—about thirty grains of the latter to each cup of coffee. Keep patient lying flat, and prevent his going to sleep. Stimulate with whisky internally, and heat and friction to the extremities.

If necessary, use artificial respiration as in the directions under heading: "Artificial Respiration."

Antidote 11: Nitrate of Silver. Lunar Caustic.

First give common table salt (chloride of sodium), one or two tablespoonfuls dissolved in a glass of water. After a few minutes induce vomiting with mustard, ipecac, and zinc sulphate, or with apomorphine hypodermically, as in directions under heading: "How to Cause Vomiting." When stomach is emptied, give freely of milk and whites of eggs and gum arabic water.

Antidote 12: Lead, Salts of.

First, give an ounce of magnesium sulphate (Epsom salts), or sodium sulphate (Glauber's salt), dissolved in a glass of water. After a few minutes induce vomiting with mustard, ipecac, and sulphate of zinc, or with apomorphine hypodermically, as directed under heading: "How to Cause Vomiting."

When stomach is emptied, give freely of milk and whites of eggs and gum arabic water.

Antidote 13: Phosphorus.

Do *not* give oil or fatty substance of any kind. Cause vomiting by giving three grains sulphate of copper (blue vitriol), dissolved in half a tumbler of water; repeat every five minutes until emesis occurs.

If any *old, thick* oil of turpentine is at hand, give a teaspoonful. If no such oxidized turpentine is convenient, give two grains permanganate of potassium dissolved in an ounce of water every five minutes.

Follow this with demulcent drinks like whites of eggs in water and gum arabic water.

Do not allow any milk, cream, or other oily or fatty food until the phosphorus is safely out of the alimentary canal.

Antidote 14: Strychnine. Nux Vomica; Ignatia; Cocculus Indicus.

First give a drachm of tannic acid stirred up in a glass of water; then cause vomiting with mustard, ipecac, and sulphate of zinc, or with apomorphine hypodermically, as directed under heading: "How to Cause Vomiting."

Give another drachm of tannic acid in water and repeat the emetic. When the stomach is thoroughly emptied give thirty grains tannic acid in water.

For the convulsions give large doses bromide of potassium (one-half ounce) and hydrate of chloral (thirty grains). If this does not control the spasms, administer nitrite of amyl, or chloroform, by inhalation.

Antidote 15: Atropine. Belladonna.

First, give a drachm of tannic acid in a glass of water; then evacuate the stomach by mustard, ipecac, and sulphate of zinc, or with apomorphine hypodermically, as in directions under heading: "How to Cause Vomiting."

After patient has vomited, give half drachm tannic acid in strong black coffee. Now give one-eighth to one-fourth grain morphine hypodermically, and repeat in half hour, if deemed necessary. Have patient lying down; keep him awake, and apply heat and friction to limbs. If breathing becomes feeble, apply artificial respiration, as directed under heading: "Artificial Respiration."

Antidote 16: Hydrocyanic (Prussic) Acid. Cyanides; Oil of Bitter Almond; Oil of Mirbane (Nitrobenzol).

Act very quickly, for this poison is rapidly fatal.

Give emetic of mustard in water, and follow with large draughts of warm water. If possible, give at once one-tenth grain apomorphine by hypodermic injection. Put ammonia to nostrils to rouse patient and give aromatic spirit of ammonia (or aqua ammonia) by mouth. Pour alternately hot and cold water on chest. Use artificial respiration energetically as directed under heading: "Artificial Respiration."

Antidote 17: Copper, Salts of.

First give freely whites of eggs, mixed with milk or water, then produce emesis with mustard, or by apomorphine hypodermically, as directed under heading: "How to Cause Vomiting." In the intervals between vomiting give half-drachm doses of ferrocyanide of potassium (yellow prussiate of potash) dissolved in water. Let patient have large quantities of whites of eggs and gum arabic water.

Antidote 18: Antimony and Potassium Tartrate (Tartar emetic).

If patient should not be vomiting freely promote emesis by large draughts of warm water, and tickling the throat with finger. Give thirty grains tannic acid in water at frequent intervals. Later give whites of eggs and gum arabic water.

Antidote 19: Salts of Mercury and Zinc; Iodine; Cantharides; Colchicum; Colocynth; Creosote; Elaterium; Oils of Croton, Pennyroyal, Savin, and Tansy.

Give, first, large quantities of whites of eggs or wheat flour mixed with water; then, if not vomiting freely, promote emesis by mustard or apomorphine hypodermically, as directed under heading: "How to Cause Vomiting." After vomiting, give whites of eggs or flour again. Following with demulcent drinks like gum arabic water or flaxseed tea. In cantharides poisoning do *not* give any *oily* or *fatty* substances.

Antidote 20: Decayed Animal Food. Cheese, Fish, Meat, Sausages.

Promote vomiting by mustard, ipecac, and sulphate of zinc, or with apomorphine hypodermically, as directed under heading: "How to Cause Vomiting."

After stomach is emptied, give a purge of calomel (eight grains), followed in a few hours by castor oil. Stimulate with whisky and use friction and heat to limbs.

Antidote 21: Poisonous Mushroons.

Induce vomiting by mustard, ipecac, and sulphate of zinc, or with apomorphine hypodermically, as directed under heading: "How to Cause Vomiting."

When stomach is emptied give thirty grains tannic acid dissolved in a glass of water. Stimulate with strong coffee or whisky. Apply heat and friction to limbs if much prostrated.

REFERENCE TABLE FOR POISONING CASES.

Poison.	Antidote No.
Acetate of Copper	17
Acetate of Lead	12
Acetate of Zinc	19
Acid, Acetic	3
Acid, Arsenious	1
Acid, Carbolic	5
Acid, Hydrochloric	3
Acid, Hydrocyanic	16
Acid, Muriatic	3
Acid, Nitric	3
Acid, Nitrohydrochloric	3
Acid, Nitromuriatic	3
Acid, Oxalic	4
Acid, Prussic	16
Acid, Sulphuric	3
Aconite	10
Aconitine	10
Alkalies, Caustic	6
Almonds, Oil of Bitter	16
Ammonia	7
Antimony and Potas. Tartrate	18
Arsenic	1
Atropine	15
Atropine, Salts of	15
Belladonna	15
Bichloride of Mercury	19
Bitter Apple	19
Blue Stone	17
Blue Vitriol	17
Calabar Bean	10
Cantharides	19
Carbolic Acid	5
Caustic Alkalies	6
Caustic, Lunar	11
Caustic, Potash	6
Caustic, Soda	6
Cheese, Poisonous	20
Chloral Hydrate	8
Chloroform	9
Cobalt (Fly Poison)	1
Cocculus Indicus	14
Colchinic	19
Colchicum	19
Colocynth	19
Concentrated Lye	6
Conium	10
Copper Acetate	17
Copper, Sulphate	17
Copper, Salts of	17
Cotton Root	10
Corrosive, Sublimate	19
Creosote	19
Croton Oil	19
Cyanide of Mercury	16
Cyanide of Potass	16
Cyanide of Silver	16
Cyanides	16
Digitalin	10
Digitalis	10
Elaterin	19
Elaterium	19
Ergot	10
Eserine	10
Ether	8
Fish Berries (Cocculus Ind.)	14
Fish, Decayed	20
Fly Paper (arsenical)	1
Fly Powder (arsenical)	1
Food, Decayed	20
Gelsemium	10
Hellebore, Green	10
Hemlock	10
Henbane	10
Hydrate of Chloral	8
Hydrochloric Acid	3
Hydrocyanic Acid	16
Hyoscyamus	10
Ignatia	14
Iodide of Mercury	19
Iodine	19
Jaborandi	10
Jimpson Weed	10
Jasmine, Yellow	10
Lead, Acetate	12
Lead, Sugar of	12
Lead, Salts of	12
Lobelia	10
Lunar Caustic	11
Lye, Concentrated	6
Meat, Decayed	20
Mercury, Bichloride	19
Mercury, Biniodide	10
Mercury, Cyanide of	16
Mercury, Nitrate	19
Mercury, Sulphate	19
Mercury, Salts of	19

Mirbane, Oil of	16
Morphine	2
Morphine, Salts of	2
Muriatic Acid	3
Mushrooms, Poisonous	21
Nitrate of Lead	12
Nitrate of Mercury	19
Nitrate of Silver	11
Nitric Acid	3
Nitrobenzol	16
Nitro-hydrochloric Acid	3
Nitro-muriatic	3
Nux Vomica	14
Oil, Bitter Almond	16
Oil, Croton	19
Oil, Mirbane	16
Oil, Pennyroyal	19
Oil, Savin	19
Oil, Tansy	19
Opium	2
Oxalate of Ammonium	4
Oxalate of Potass	4
Oxalic Acid	4
Oxalic Acid, Salts of	4
Pennyroyal, Oil of	19
Phosphorus	13
Phosphorus, Rat Paste	13
Physostigma	10
Physostigmine	10
Physostigmine, Salts of	10
Pilocarpine	10
Pilocarpus	10
Potassa, Caustic	6
Prussic Acid	16
Rat Paste (Phosphorus)	13
Rats, Rough on (Arsenic)	1
Salt of Sorrel	4
Santonin	10
Sausages, Decayed	20
Savin, Oil of	19
Silver, Cyanide of	16
Silver, Nitrate of	11
Soda, Caustic	6
Sorrel, Salt of	4
Spanish Fly	19
Stramonium	10
Strophanthin	10
Strophanthus	10
Strychnine	14
Strychnine, Salts of	14
Sugar of Lead	12
Sulphate of Copper	17
Sulphate of Mercury	19
Sulphate of Zinc	19
Sulphuric Acid	3
Tansy, Oil of	19
Tartar Emetic	18
Tobacco	10
Veratrine	10
Veratrum Viride	10
Zinc, Acetate of	19
Zinc, Chloride of	19
Zinc, Sulphate of	19
Zinc, Salts of	19

—*Meyer Brothers Druggist.*

Manufacture of Surgical Dressings.*

Since the introduction of antiseptic methods in surgery specially prepared wound dressings have become indispensable, and now constitute a staple article of the pharmacist's trade. The manufacture of the necessary raw materials for these requires somewhat expensive machinery; the work of impregnating such material, however, may be conducted with advantage on a small scale. The subject may be divided into four sections: Gauze, cotton, jute, and miscellaneous dressings, and, for the sake of brevity, general directions for their preparation will precede each series of formulas.

* Free translation from Eugen Dieterich's Neues Pharmaceutisches Manual, by Adolf G. Vogeler, in *Western Druggist.*

By way of introduction, it may be said that the exclusion of daylight, frequently directed, is best secured by the use of amber window glass in the laboratory, and which may be made removable by some sliding or hinged device. That all operations must be executed accurately and with the utmost cleanliness is self-evident. There are some unscrupulous manufacturers who, intent upon saving labor, employ an atomizing apparatus instead of dipping and wringing out to a given weight the material to be medicated. Such a method, of course, does not insure even distribution, and is absolutely inadmissible.

GAUZE. (CARBASUS, TELA.)

The bleached gauze employed should be free from fat, measure 1 metre in width, weigh from 40 to 45 grams per square metre (so that from 22 to 25 metres of the gauze shall weigh 1,000 grams, or 1 kilogram), and consist of 15 x 15 threads per square centimetre.

To impregnate the gauze, first establish its weight, then prepare the proportionate medicating liquid required, immerse the gauze and knead it for about 15 or 20 minutes, and finally wring or press out to such a point that just the required percentage of medicament shall remain in the material.

As a rule, a good absorbent cotton will retain, after expression, an amount of liquid equal in weight to one and one-fourth times its own weight, so that, for instance, 1,000 grams of gauze, after being dipped into a hydro-alcoholic solution of salicylic acid and then expressed, should weigh 2,250 grams. Details will be given under each formula.

For large operations enamelled sheet-iron troughs may be used, or, where these are not permissible (salicylic acid, etc.), glazed earthenware vats. Evaporating dishes or granite kettles and pails answer for smaller operations. For expressing larger quantities care must be taken to arrange the fabric in layers of even and equal thickness in order to insure an equal degree of saturation. When desirable, as in the case of iodoform, the press may be protected (or, reversely, the goods protected against contact with the press) by placing the fabric between layers of parchment paper.

When a certain amount of gauze is to be impregnated without the necessity of removing excess of liquid by pressure, it is placed into the exact amount of impregnating liquid and well worked for about fifteen or twenty minutes, when a sufficient weight is put on it and allowed to remain for several hours until the gauze has become evenly moistened. It is well to turn the material repeatedly in the meantime, while in some cases the application of 50 to 60°C. heat may be advisable. As an extra precaution, the goods may finally be placed in a press and subjected to just so much pressure that no liquid shall be forced out. A similar procedure is followed where the impregnating mixture contains no volatile solvent, such as Lister's carbolic gauze.

For preparing small quantities of fresh medicated gauze have on hand a stock-solution of the impregnating fluid, and after dipping into it the required weight of gauze, arrange the same in flat layers on parchment paper, wrap around more of the same material, and pass through a wringer. This will leave the gauze saturated to just the proper degree of one and one-fourth of its own weight.

In the case of alcoholic or aqueous impregnations the material is best dried by suspending from lines or wooden rods, but, when fatty or ethereal, the gauze is gathered on a reel of proper width directly as it leaves the press, and allowed to remain there for twenty-four hours, when it may be cut into proper lengths.

Medicated gauzes are placed on the market in lengths of 1, 3, and 5 metres, and are variously packed in tinfoil, wax paper, parchment paper, tin boxes, or glass tubes, as may be required.

Sal Alembroth Gauze.

Ammonium chloride	gr.	1.0
Mercuric chloride	"	2.5
Water, distilled	"	1500.0
Gauze (22-25 m.)	"	1000.0

Saturate and press out to the weight of 2,250 grams. Dry by suspending in a room under exclusion of daylight. When desired colored 0.1 gram of water-soluble aniline blue is dissolved in the water.

Borated Gauze, 10 per cent.

Boric acid	gr.	100.0
Water, distilled, hot	"	1380.0
Gauze (22-25 m.)	"	1000.0

Saturate, and press out to the weight of 2,250 grams.

Carbolized Gauze, 5 per cent., Lister.

Carbolic acid, crystallized	gr.	50.0
Resin	"	500.0
Paraffin	"	700.0
Gauze (22-25 m.)	"	1000.0

Melt together the resin, paraffin, and carbolic acid, and then proceed to impregnate the gauze at a temperature of from 50 to 60°C. for about two hours, as explained in the introduction; press between hot plates for one-half hour and then pack immediately. The percentage may be varied by increasing or decreasing the amount of carbolic acid used.

Carbolized Gauze, 10 per cent., V. Bruns, Jun.

Carbolic acid, crystallized	gr.	120.0
Castor oil	"	50.0
Resin	"	480.0
Alcohol, 95 per cent.	"	850.0
Gauze (22-25 m.)	"	1000.0

Make a solution, immerse the gauze, press out to the weight of 2,250 grams, gather on a reel, and allow to dry during twenty-four hours.

Carbolized Gauze, Ph. Hung. II.

Carbolic acid, crystallized	gr.	100
Alcohol, 90 per cent.	"	900

Immerse in the solution absorbent gauze, press out and dry.

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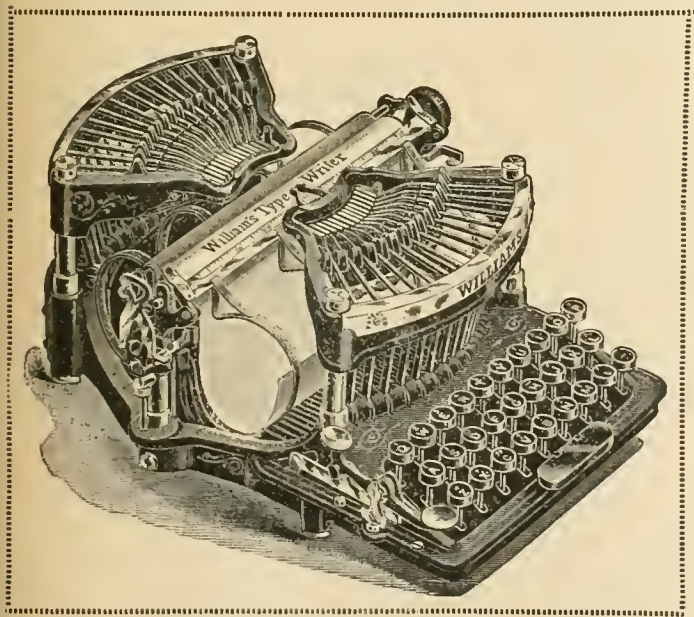

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Creolin Gauze, 4 per cent.

Creolin	gr.	50
Water, distilled	"	1450
Gauze (22-25 m.)	"	1000

Saturate, press out to the weight of 2,250 grams, and dry.

Dermatol Gauze, 10 per cent.

Resin	gr.	250
Alcohol, 90 per cent.	"	1000
Glycerin	"	200
Gauze (22-25 m.)	"	1000
Dermatol	"	100

Dissolve the resin in the alcohol, add the glycerin, and impregnate the gauze by kneading for some time and weighing repeatedly. Spread the moist gauze out flat in pieces of the desired lengths, and sprinkle over it the dermatol as evenly as possible. Gather on a reel and allow to remain for twenty-four hours.

Eucalyptus Gauze, 4 per cent., Lister.

Oil eucalyptus	gr.	40
Dammar resin	"	240
Paraffin	"	360
Gauze (22-25 m.)	"	1000

Proceed as described under Lister's carbolized gauze.

Eucalyptus Gauze, 7.5 per cent., Nussbaum.

Oil eucalyptus	gr.	100
Alcohol absolute	"	500
Water, distilled, hot	"	900
Gauze (22-25 m.)	"	1000

Saturate, press out to the weight of 2,250 grams, and dry.

Iodoform Gauze, 20 per cent., V. Billroth.

Iodoform (impalpable)	gr.	200
Gauze (22-25 m.)	"	1000

Sprinkle evenly over the surface of the gauze and rub in dry.

Adhesive Iodoform Gauze, 50 per cent., V. Billroth.

Resin	gr.	300
Alcohol, 90 per cent.	"	900
Ether	"	100
Glycerin	"	150
Gauze (22-25 m.)	"	1000
Iodoform (impalpable)	"	500

Dissolve the resin in the alcohol and ether, add the glycerin, immerse the gauze, and knead and weight for three hours, as described in the introduction. Then spread out and sprinkle evenly over the surface of the still moist gauze the iodoform. Gather on a reel and let dry for twenty-four hours, excluding the daylight. To prepare extemporaneously sprinkle 20 grams of iodoform over one square metre of Lister's carbolized gauze (five per cent.) and rub in the powder.

Iodoform Gauze, 10 per cent., V. Mosetig.

Iodoform	gr.	100
Ether	"	700
Alcohol, 90 per cent.	"	700
Gauze (22-25 m.)	"	1000

Saturate the gauze with the solution, wrap in parchment paper, cover with a weight, and after several hours gather on a reel, allowing to dry under exclusion of daylight.

To increase the percentage-strength, the same process is repeated as often as required. The gauze must be absolutely free from starch, lest the iodoform be decomposed. When such a fabric is not at hand, the risk can be avoided by first impregnating the same with a 0.25 per cent. sodium thiosulphate solution and drying.

Iodol Gauze, 10 per cent.

Iodol	gr.	100.0
Alcohol, 90 per cent.	"	1950.0
Glycerin	"	50.0
Gauze (22-25m.)	"	1000.0

Dissolve the iodol in the alcohol with the aid of a gentle heat (50°C.), and gradually add the glycerin, saturate the gauze with the solution, wrap in parchment paper and cover with a weight. After six hours gather on a reel, or suspend in a dark room until dry. The same remarks as to the presence of starch in the gauze apply here. The strength may be varied by increasing or decreasing the amount of iodol.

Naphthalin Gauze, 20 per cent.

Naphthalin	gr.	200.0
Resin	"	100.0
Alcohol, 90 per cent.	"	1200.0
Gauze (22-25 m.)	"	1000.0

Effect solution by the aid of a gentle heat, immerse the gauze in warm solution, knead and cover with a weight, as explained in the introduction, for three hours, gather on a reel, and allow to dry for twenty-four hours. Pack immediately. Expression is unadvisable, for, with the reduction of temperature, the naphthalin would instantly crystallize out.

Resorcin Gauze, 20 per cent.

Resorcin	gr.	120.0
Glycerin	"	120.0
Alcohol, 90 per cent.	"	460.0
Water, distilled	"	800.0
Gauze (22-25 m.)	"	1000.0

Immerse the gauze in the solution, press out to the weight of 2,250 grams, and hang up to dry.

Salicylated Gauze, Thiersch.

(*a*) 4 per cent.

Salicylic acid	gr.	48.0
Alcohol, 90 per cent.	"	450.0
Water, distilled, warm	"	1000.0
Gauze (22-25 m.)	"	1000.0

Immerse the gauze in the solution, press out to the weight of 2,250 grams, and hang up to dry.

(*b*) 10 per cent.

Salicylic acid	gr.	120.0
Alcohol, 99 per cent.	"	680.0
Water, distilled, warm.	"	700.0
Gauze (22-25 m.)	"	1000.0

Salicylated Gauze, V. Bruns, Jun.

(*a*) 5 per cent.

Salicylic acid	gr.	60.0
Resin	"	12.5
Castor oil	"	12.5
Alcohol, 95 per cent.	"	1450.0
Gauze (22-25 m.)	"	1000.0

Immerse the gauze, press out to the weight of 2,250 pounds, gather on a reel, and allow to dry.

(*b*) 10 per cent.

Salicylic acid	gr.	120.0
Resin	"	25.0
Castor oil	"	25.0
Alcohol, 95 per cent.	"	1330.0
Gauze (22-25 m.)	"	1000.0

Proceed as in the foregoing.

Salol Gauze, 50 per cent.

Prepare in the same manner as v. Billroth's adhesive 50 per cent. iodoform gauze.

Sero-sublimate Gauze, Lister.

(Albuminate of Mercury Gauze.)

Mercuric chloride, in very fine powder	gr.	6.0
Horse-blood serum	"	600.0
Water, distilled	"	900.0
Gauze (22-25 m.)	"	1000.0

Triturate the mercuric chloride with the serum until solution is effected, add the water, immerse the gauze, press out to the weight of 2,250 grams, and hang up to dry under exclusion of daylight.

In case of necessary solution of albuminate of mercury may be employed, when the directions would be as follows :

Mercuric chloride	gr.	6.0
Sodium chloride	"	24.0
Egg albumen	"	90.0
Water, distilled	"	1460.0
Gauze (22-25 m.)	"	1000.0

Beat the white of egg to a froth, and when again liquefied mix it with the water. In this dissolve by trituration the mercuric and sodium chlorides, strain through a dense linen cloth, immerse the gauze, press out to the weight of 2,250 grams and dry as above.

Another substitute for horse-blood serum is the dry blood albumen of commerce, 1 part of which dissolved in 9 parts of water represents 10 parts of fresh serum.

Mercuric Chloride Gauze, German Military.

Mercuric chloride	gr.	50.0
Alcohol, 90 per cent	"	5000.0
Water, distilled	"	7500.0
Glycerin	"	2500.0
Fuchsin	"	0.5
Gauze (about) m.	"	400.0

Immerse the gauze in the solution, put through a wash-wringer and dry under exclusion of daylight.

Mercuric Chloride Gauze, 0.333 per cent., Bergmann.

Mercuric chloride	gr.	4.0
Alcohol, 90 per cent.	"	150.0
Glycerin	"	150.0
Water, distilled	"	1200.0
Gauze (22-25 m.)	"	1000.0

Immerse the gauze in the solution, press out to the weight of 2,250 grams, and hang up to dry under exclusion of daylight.

Mercuric Chloride Gauze, 0.25 per cent., Maas.

Mercuric chloride	gr.	2.5
Sodium chloride	"	500.0
Glycerin	"	200.0
Water, distilled	"	1200.0
Gauze (22-25 m.)	"	1000.0

Pour the solution over the gauze, knead thoroughly subject to pressure for one hour, and hang up to dry under exclusion of daylight.

Prepare 0.5 per cent. gauze by using 5 grams of mercuric chloride.

Tannin Gauze, 50 per cent.

Tannin	gr.	500.0
Alcohol, 90 per cent.	"	600.0
Water, distilled	"	600.0
Gauze (22-25 m.)	"	1000.0

Immerse the gauze in the slightly warm solution, knead, cover with weights for 4 hours, and hang up to dry in dark, warm room. Protect against light and air.

Thymol Gauze, 1.6 per cent. Ranke.

Thymol	gr.	16.0
Resin	"	50 0
Spermaceti	"	500.0
Alcohol, 90 per cent	"	1500.0
Gauze (22-25 m.)	"	1000.0

Dissolve by the aid of heat, immerse the gauze in the warm solution, keep under pressure for several hours, gather on a reel and let dry during twenty-four hours.

Zinc Sulphocarbolate Gauze, 10 per cent., Bottini.

Zinc sulphocarbolate	gr.	100.0
Water, warm	"	1500.0
Gauze (22-25 m.)	"	1000.0

Pour the solution over the gauze, keep under pressure for several hours and hang up to dry.

Some of the Trials of Druggists.

The life of the pharmacist is not always free from adventure nor his path from thorns, and, even though he may gather in seven hundred per cent. profit on an emetic or a dose of salts, there are contingencies in his business that the average merchant does not share. From the time when the druggist's boy burns holes in his shirt with acid, charging soda fountain, to the haling of him before the county judge, as proprietor, for repeating a "prescription" once too often, he must ever be on his guard against calamity.

The time was—we know a few old fellows who remember—when the long green vial was in common use, and when the thin glass was fain to crush in the process of corking, entailing painful consequences to the fingers; when the older clerk would plan disagreeable surprises for the boy, in the educational line, utilizing for the purpose his superior knowledge of drugs like cowhage, hellebore, or capsicum pods, or setting him to work on a batch of mercurial ointment, supplying him with the freshest of lard and highly enjoying his perspiring efforts to incorporate the coy and elusive mercury.

However, the mill has taken the place of the mortar, and the clerk no longer makes mercurial ointment, nor powders crude drugs, and he now charges the soda fountain from a cylinder and saves his shirt. Occasionally the accidents of the druggist partake of the comic, as when a young friend of ours, just ready one Sunday evening to go out with his best girl, was called upon to prepare a pint of "black oil," and, adding the acid sulph. all at once with a vigorous shake to the other ingredients, was transformed instantaneously from a well-dressed and scented beau to a lugubrious specimen of disappointed hope and ill-smelling clothes. The spot on the ceiling long showed the centre shot of the prescription.

A large bottle of stronger ammonia, in the hands of a clerk who was on a step-ladder, having been broken by an unlucky tap against a step, no little trouble and pain was caused by some of the contents running down the front of him, beneath his loose overalls. It was no fun for the young man, though his companions took it that way. This was in a wholesale store, and a somewhat similar accident befell another of the boys, again by the step-ladder route. In taking down a bottle of nitro-muriatic acid, some of the acid was spilled directly on the top of his head in some unaccountable way, and such a mass of capillary stickiness resulted! The near-by water faucet and the ready resources of the chemist prevented very serious consequences. Not so easily, though, did the packer escape, when a gutta-percha bottle of hydrofluric acid, which he was pressing into a small space in a box of goods, threw out its stopper, sending a small quantity of the acid into his eye. The incident furnished another instance of the value of the gold-medal chemist, whose promptness and skill saved the victim from blindness. A still more serious trouble came upon a poor fellow we knew, whose position as under-porter obliged him to repack Paris green. Disregarding instructions as to protecting his nose and mouth thoroughly from the dust, he inhaled enough of the poison to render him a physical wreck. For a long time he was under pension from his employer, till death came to his relief.

Recently we were shown a rough hole in a drug-store shelf, made by the top of a bottle of peroxide of hydrogen which exploded beneath, and which would just as readily have gone through the druggist's head had it been in the way. During the same week we saw in another store the effects of an explosion of a tube of nitrite amyl, where thousands of particles of glass were blown into the near-by woodwork. The pharmacist was almost directly in front of and near the tube when it "went off," but, most fortunately for his countenance, not to say eyes, he had moved his head to one side at the moment of the explosion—a close call.

Probably sulphuric acid has left its mark in the form of scars upon more druggists than has any other article in his line. We once knew a clerk in an eastern city who broke, in handling it, a carboy of the acid, and was pretty thoroughly saturated with the fluid. It was sheer good luck in his case that the back door opened upon the Erie Canal, into which he jumped instanter, saving his flesh, though losing his trousers. The same establishment furnished another victim a little later, who in pouring acid from the carboy into a pitcher (the old way) splashed his face with a little acid, which struck the corner of his eye. The pain caused him to quickly jerk the carboy to an upright position, which movement threw out an additional quantity of the caustic upon his arm, which was bared to the shoulder. This accident left our friend with a bad scar on his face and caused running sores lasting many years upon his arm. Instances of similar accidents might be multiplied indefinitely, and almost every old drug store could furnish reminiscences of startling explosions and sudden combustions more or less serious in their effects, but which the progress of pharmaceutical knowledge is rendering less and less frequent.—*California Druggist.*

Fraud in Ginseng.

The ginseng industry in the United States and Canada, amounting to $5,000,000 annually, is threatened with ruin through the rascality of a smart lot of unscrupulous tradesmen. The plant grows wild in nearly every section of the United States. New York and Canada produce the choicest root. The Chinese are almost the sole users of ginseng. They regard it as a panacea. The root sells all the way from $2 to $10 per pound. New York is the centre of trade, and there are in that city and vicinity twelve dealers and eight buyers.

Fraud was discovered by Chinese buyers. In looking over some lots of root they found scattered through the genuine ginseng a lot of Japanese ginger, which sells for only 30 cents a pound. Further investigation showed that from 10,000 to 20,000 pounds of the Japanese stuff had been mixed with the American ginseng. It is feared that the country is flooded with the counterfeit article. It is asserted that unless a check is put on the fraud the legitimate industry will in all likelihood be destroyed. This would mean a loss of revenue to a great number of the farming class.—*Associated Press Despatch.*

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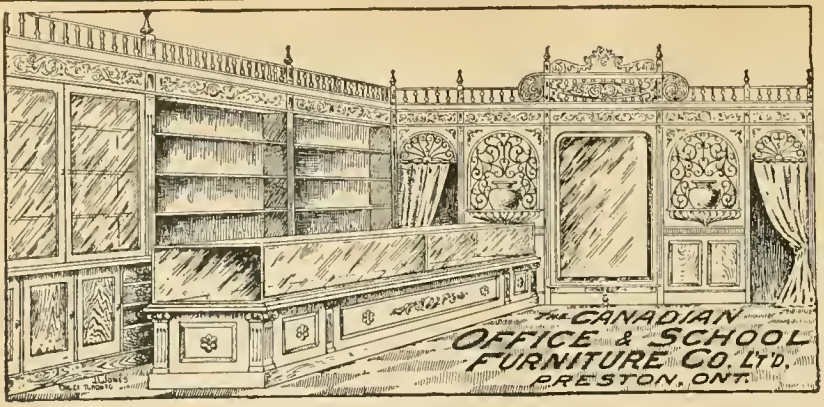

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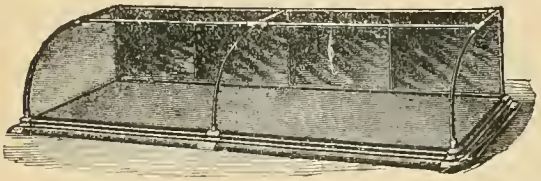

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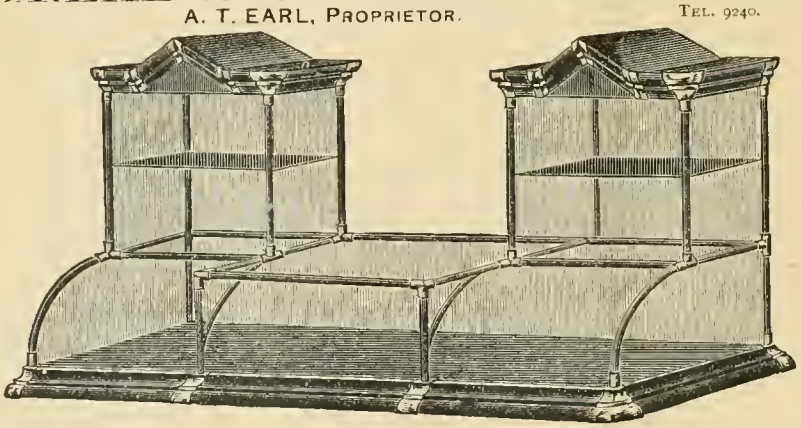

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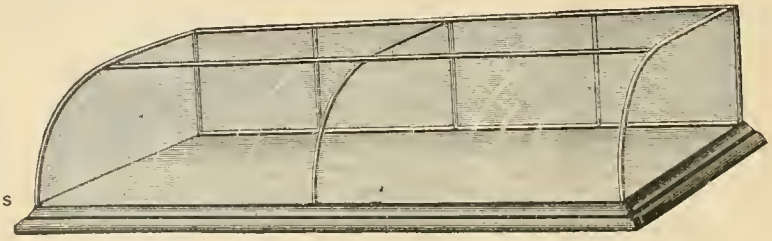

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Recent United States Patents.

No. 541,639. — Bulb for Syringes. Henry D. Smith, Newark, assignor by mesne assignments to the Riverside Rubber Co., Belleville, N.J.

The combination, in a syringe, atomizer, or the like, of a compression bulb and its discharge tubing, and an expansion bulb or pump connected with the tubing comprising therein two separable half sections, flexible and expansible and with a normal tendency to force themselves inwardly to exert pressure, the half sections having annular flanges adapted to be placed upon each other, and means for securing the half sections together.

No. 542,177.—Anal Bougie. Franklin P. Stukey, Lancaster, Ohio.

In a pessary, the combination with the inflatable sheath of an extra inflatable sheath provided with perforations and adapted to be placed over the first-named sheath to apply lubricants or medicaments.

No. 543,002.—Process of making Ferric Sulphate. Stephen H. Emmens, London, England.

Claim.—(1) The method of manufacturing ferric sulphate, which method consists in bringing sulphurous anhydrid and air into contact with ferric hydrate and water.

(2) The method of manufacturing ferric sulphate, which method consists in passing the gases from a sulphuret or sulphate roasting or calcining furnace into water in which ferric hydrate is suspended.

No. 543,177.—Water Bag. William H. Daly, Bayonne, N.J.

The device for local application of heat or cold to any part of the body at the will of the patient herein described, consisting of a waterproof receptacle for holding water, formed and constructed to be attached to the human hand, and supplied on its exterior with means for receiving the hand with its heat conducting surface outward.

No. 543,829. — Syringe. Isaac Q. Gurnee, Butler, N.J., assignor to the Butler Hard Rubber Co., New York, N.Y.

In a syringe, the combination of a syringe barrel, having a tip at one end and a head at the other, a piston sliding in the barrel, and a piston rod sliding in the head and connected to the piston, the piston rod having a metal core, and provided with a coating of hard rubber vulcanized thereon.

No. 543,326.—Process of Producing Potassium Chlorate. Karl J. Bayer, Woburn, Mass.

Claim.– (1) The process herein described of producing potassium chlorate, which consists in mixing zinc oxide and water with potassium chloride, and subjecting the solution to the action of chlorine so as to produce directly potassium chlorate and zinc chloride, substantially as set forth.

(2) The process herein described of producing potassium chlorate, which consists in mixing zinc oxide and water with potassium chloride, heating the solution to near the boiling temperature, and then subjecting the heated solution to the action of chlorine so as to produce potassium chlorate and zinc chloride, substantially as set forth.

(3) The process herein described of producing potassium chlorate, which consists in mixing zinc oxide and water with potassium chloride, heating the solution to near the boiling temperature, subjecting the heated solution to the action of chlorine, separating the potassium chlorate from the liquor by crystallization and concentrating the zinc chloride in the remaining liquor, substantially as set forth.

No. 543,601.—Method of Preparing Granular Effervescent Compounds. Thos. Kerfoot, Manchester, England.

Claim.—(1) In the method of preparing granular effervescible mixtures, the steps consisting of separately submitting the acid and the alkaline constituents to contact with a saccharine adhesive, and the granulating and drying each constituent before assembling the dried material, substantially as described.

(2) The hereinbefore described method of preparing granular effervescible mixtures, which consists of separately preparing the reacting agents by mixing with the acid constituent and with the alkaline constituent, sufficient sugar and water to render each mixture coherent, separately granulating each mixture, drying the granules, mixing the dried acid and alkaline granules, and packing the mixture in air-tight vessels, substantially as described.

No. 543,197.—Compound of Pryoxyline. John H. Stevens, Newark, N.J.

Claim.—(1) The process of manufacturing compounds of pryoxyline, which consists in intimately mixing pryoxyline, camphor, and naphthalene, and subjecting the resulting compound to heat and pressure, substantially as set forth.

(2) The process of forming compounds of pryoxyline, which consists in mixing pryoxyline, camphor, naphthalene, and a liquid menstruum, or liquid menstrua, and then subjecting the resulting compound to heat and pressure, substantially as set forth.

(3) The process for the manufacture of compounds of pryoxyline, which consists of the following steps: first, intimately mixing pryoxyline, camphor, naphthalene and a liquid menstruum or liquid menstrua; second, drying out the liquid menstruum or liquid menstrua; third, subjecting the dry compound to heat and pressure.

(4) As a new composition of matter, a pyroxyline compound consisting of pyroxyline, camphor, and naphthalene, substantially as described.

(5) As a new composition of matter, a pyroxyline compound consisting of pyroxyline, camphor, naphthalene and a liquid menstruum or liquid menstrua, substantially as described.

No. 543,214.—Aromatic Glycocol Derivative. Wilhelm Majert, Berlin, Germany.

Claim.—(1) The process of obtaining aromatic glycocol derivates, which consists in treating a suitable amine with a haloid combination of a hydrocarbon compound such as described, in the presence of an excess of ammonia, driving off the ammonia, boiling in water, filtering, alkalizing the filtrate, and crystallizing the glycocol derivative out of the filtrate by means of an excess of ammonia, substantially as set forth.

(2) The process of obtaining glycocol derivates, which consists in treating a glycocol compound such as described with an aqueous or alcoholic solution of a primary aromatic amine, and separating the derivative by means of an excess of ammonia, substantially as described.

(3) The herein-described crystallizable or crystalline glycocol derivatives having but one acetamid remainder bound to one nitrogen atom and containing the group $NHCOCH_2NH_2$, the free bases of said derivatives having strong chemical affinities and being set free from their compounds by ammonia at low temperatures, and liberating ammonia from its compounds when heated.

No. 543,813.—Prescription-file for Pharmacists. John H. Robinson, Holly Springs, Miss.

Claim.—(1) A prescription-file consisting of uprights mounted on a suitable base and rigidly connected, one upright provided with rigid hooks and the other with adjustable short wires having eyes or loops at the ends next the hooks on the other upright, and file-wires having loops at one end to engage the hooks on one upright, and hooks at the other end to engage the loops on the adjustable wires substantially as described.

(2) A prescription-file consisting of uprights mounted on a suitable base and rigidly connected, one being provided with rigid hooks and the other with short wires adjustable horizontally in openings in the second upright, thumb-nuts turned upon the outer threaded parts of the short wires to effect the adjustment, and file-wires having loops at one end to engage the rigid hooks, and hooks at the other end to engage loops on the ends of the short, adjustable wires, said file-wires also having disks adjacent to their looped ends, substantially as described.

No. 543,599. — Machine for Making Medicinal Tablets. Louis Graf, Cincinnati, Ohio.

Claim.—(1) In a machine or apparatus for making medicinal tablets and the like, the combination of a bed-plate; a standard mounted thereon; a plunger having a male-die and sliding in a guide-way constructed on said standard; an operating-lever suitably connected with the upper end of said plunger: a female mold-device on the bed-plate comprising a barrel or cylinder and one or more bottom-dies; a turn-table mounted on the bed-plate forward of the path of the plunger and hav-

ing said one or more bottom-dies mounted thereon and which are brought under said path of the plunger or upper die; and a stripper-arm having a stripper-plate thereon, and projecting from the standard in the upward path of the mold-barrel; the whole being constructed, arranged and adapted to operate substantially as herein set forth.

(2) In an apparatus for making medicinal tablets and the like, the combination with a male plunger-die, and suitable driving mechanism therefor, of a female mold-device comprising a barrel or cylinder and a turn-table having one or more bottom-dies and a tablet carrier or delivery cup mounted thereon, substantially as herein set forth.

(3) In an apparatus for making medicinal tablets and the like, the combination with a male plunger-die, and suitable driving mechanism therefor, of a female mold-device comprising a barrel or cylinder and a turn-table having a bottom-die and a tablet carrier or delivery-cup mounted thereon, and a pair of stops for said turn-table, whereby the latter is readily and accurately checked in proper working position, substantially as herein set forth.

No. 545,234.—Syringe. William Kiel, Butler, N. J.

Claim.—(1) A syringe chamber provided with an annular-threaded bushing having a restricted intermediate portion, in combination with a flexible tip interposed between the chamber and the bushing.

(2) A joint for syringe tips, comprising a syringe chamber, a bushing secured thereto having an enlarged outer end, a threaded inner end, and a restricted intermediate portion forming a clamp seat and said enlarged end constituting a means for inserting and removing the bushing.

(3) The combination in a syringe chamber of a barrel provided with a threaded opening, a threaded bushing or sleeve secured thereto, and a flexible tip adapted to be inserted between said bushing and threaded opening, whereby said tip meshes or is forced into the thread to form a fluid-tight joint.

No. 545,147. — Bottle. Burnham R. Benner, Lowell, Mass.

Claim.—(1) The combination with a bottle provided with a cork or stopper having an opening extended through it of a measuring device carried by the stopper or cork, and consisting of a tube inserted in said opening, and terminating above the body portion of the bottle so as to permit substantially the entire contents of the bottle to be withdrawn through the said tube as described, a bulb attached to the said tube and in communication therewith, and a nipple attached to the bulb and provided with a capillary opening extended the length of the said nipple, for the purpose specified.

(2) The combination with a bottle provided with a cork or stopper having a hole or opening extended through it, of a liquid measuring device consisting of a glass tube inserted through said opening to attach the device to the cork or stopper, and terminating within the neck of the bottle to permit substantially the entire contents of the bottle to be removed through the said tube, and a bulb integral with the said tube forming a liquid-receiving chamber, and provided with an air inlet, substantially as described.

No. 545,365.—Capsule Filler. Albert M. Ingalls, Duluth, Minn.

Claim.—(1) A capsule filler, comprising a funnel provided at its outlet end with an expansible and contractible tube to receive and hold by contraction a capsule body while being filled, and a double-ended reversible rammer provided with a longitudinal bore serving as an air vent, substantially as described.

(2) A capsule filler, comprising a stand or support, a funnel mounted movably thereon, and provided at its lower outlet end with an expansible tube to receive and hold by contraction a capsule body, while being filled, the bore of said tube being smaller than the capsule to be filled, and of the same diameter throughout its length, and a rammer, substantially as described.

(3) In a capsule filler, a double ended reversible rammer having a longitudinal bore serving as an air vent, substantially as described.

No. 545,481. — Medicine-dose Indicator. Robert Fullerton, Des Moines, Iowa.

Claim.—A cup cover having a hand and a pointer jointly pivoted to the centre of the cover, a clock dial at the circumference of the cover and concentric with the pivot of the movable hand that extends to the dial, a scale of numerals located in an eccentric position relative to the said hand and dial, and the pivoted pointer that extends to said scale marked "Quantity," the pivoted hand marked "Next Dose," a prepared place on the cover for a person's name, and a prepared place on the cover for a doctor's directions, arranged in the manner set forth for the purposes stated.

No. 544,933.—Citrate of Ethenylethylenamidin and process of obtaining same. Albrecht Schmidt, Berlin, Germany, assignor to the Chemische Farbrik auf Aktien, vormals E. Schering, same place, and the Farbeufabriken, vormals Fr. Bayer & Co., Elberfeld, Germany.

Claim.—(1) The process of producing a new pharmaceutical product, which consists in combining equi-molecular proportions of citric acid and ethenylethylenamidin, substantially as described.

(2) As a new article of manufacture, the salt which may be formed by combining citric acid and ethenylethylenamidin, corresponding with the general formula:

Citric acid ($C_2H_4N_2H.C.CH_3$,)

forming a white crystalline mass, soluble in water, fit for employment as medicine in cases of uric acid concretions and rheumatism, substantially as described.

No. 546,596.—Process of and Apparatus for making Sulphuric Acid. Nathaniel P. Pratt, Atlanta, Ga.

Claim.—(1) In the manufacture of sulphuric acid, the method of accelerating and increasing the production within a given chamber-space, which consists in introducing the materials into the chamber, causing agitation of the same throughout the acid-producing portion of the apparatus, and withdrawing a portion of the matter from one part of the chamber and representing it at another, the operation being without interference with the draft, substantially as described.

(2) In the art of making sulphuric acid, the improvement which consists in conducting a portion of gases previous to denitration against a current of dilute sulphuric acid, and subsequently projecting said gases into the chamber by mechanical means, substantially as described.

(3) The method of decomposing any nitro-sulphuric acid present which has escaped previous decomposition and of precipitating the sulphuric acid freed in the decomposition, by projecting the nitro-sulphuric acid against suitable surfaces under subjection to the action of water or weak sulphuric acid, and returning whatever thereof remains undecomposed and whatever sulphuric acid remains unprecipitated to the front of the chamber, substantially as described.

No. 542,611.—Process of Coating Pills. David M. Holbrook, Brooklyn.

Claim.—The process of coating pills, consisting in lowering them one separately from another into coating material which will remain liquid only at a temperature above normal atmospheric temperature, subsequently removing them quickly from said material, and finally dropping them directly into a column of a liquid which is of less specific gravity than the pill and is inert with respect to the coating of the same, the liquid being maintained at a sufficiently low temperature and the column of the same being sufficiently high to cause the congelation of the coating material before the pill has reached the bottom of the liquid, substantially as specified.

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Formulary.

VIAU'S ANTISEPTIC MOUTH-WASH.

Salicylic acid	1 part.
Chloroform	10 parts.
Tincture of benzoin	10 parts.
Tincture of cinnamon	10 parts.
Aromatic spirit	130 parts.

Mix. Add two teaspoonfuls to a glass of water, and use two or three times a day. —*National Druggist.*

IMITATION OF EAU DE BOTOT, MOUTH-WASH.

Tincture of cedar wood	1 pint
Tincture of myrrh	½ pint
Tincture of rhatany	½ pint
Oil of peppermint	15 minims
Oil of rose	10 minims

POUDRE DENTIFRICE.

Magnesia, calcined	4 drachms
Precipitated chalk	4 drachms
Potassium chlorate	1½ drachms
Oil of anise	5 drops

—*Revue de Thérapeutique.*

ADHESOL.

A new surgical dressing recommended by Dufau (*Sun. Med.*) for treating superficial wounds has the following composition :

Copal	35 parts.
Benzoin	3 parts.
Tolu balsam	3 parts.
Ether	100 parts.
Oil thyme	2 parts.
Alpha-naphtol	3 parts.

When the varnish is applied to the skin, the liquid portion evaporates rapidly, leaving a thin antiseptic pellicle.

WART REMOVER.

The following powder will be found quite effective for removing warts :

Salicylic acid	5 parts.
Boraic acid	15 parts.
Calomel	30 parts.

Mix, and make into a fine powder. Put into small glass tubes, with the direction to rub a small portion on the wart thrice daily.—*National Druggist.*

COMPOUND TINCTURE OF CAJUPUT.

This is an eclectic remedy for cholera morbus, summer diarrhœa, cramps, etc., especially when there is little fever or inflammation and much depression :

Oil of cajuput	℥j.
Oil of anise	℥j.
Oil of peppermint	℥j.
Oil of cloves	℥j.
S.V.R.	℥iv.

Mix. Dose : A teaspoonful every ten to thirty minutes until relief is obtained. —*Chemist and Druggist.*

NEW IGNITING SUBSTANCE FOR MATCHES.

According to the *Zeitschrift fur Angewandte Chemie*, Simonet has succeeded in producing an entirely non-poisonous and harmless mixture for tipping matches, as follows :

Potassium chlorate	24 parts.
Potassium chromate	3 parts.
Barium sulphate	9 parts.
Antimony sulphide (Kermes)	3 parts.
Gum arabic	5 parts.
Zinc dust with a small percentage of amorphous phosphorus	9 parts.

Mix. —*National Druggist.*

GLOSSY BLACK PAINT FOR BICYCLES.

A glossy black paint can be made thus :

Amber	16 oz.
Boiling linseed oil	½ pint.
Asphalt	3 oz.
Resin	3 oz.
Oil turpentine	1 pint.

Melt the amber in the boiling oil, and add the asphalt and resin. Mix thoroughly, remove to open air, and gradually add the turpentine. Black japan also produces a good and cheap black enamel paint suitable for bicycles.

GLYCERINUM SAPONATUM.

Glycerinum saponatum for the preparation of glycerin suppositories, according to the *Apotheker Zeitung*, is prepared as follows : Melt together on the water-bath 92 parts of glycerin and 8 parts of medicinal soap, previously reduced to the finest powder. Waxed paper moulds should be used for casting, and the suppository should be at once wrapped in tinfoil. They should be preserved in tightly closed jars in a cool place.

LIQUOR ANTHRACIS.

Fischel describes a remedy under this name similar to the English "liquor carbonis detergens." The liquor anthrax simplex is made by dissolving 3 ounces of coal-tar in 6 ounces of benzol, to which 6 ounces of 90 per cent. alcohol is added ; the whole is well shaken, and set aside at a temperature of 35° C. From the simple solution he derives a second formula, which he calls "liquor anthracis compositus." The latter is prepared in the following manner : 12½ drachms of potassium sulphate are dissolved in 10 drachms of hot sodium hydrate (15 per cent.), and warmed, together with 6 ounces of alcohol. Next, 3 ounces of resorcin, and 5 drachms of salicylic acid are dissolved in 6 ounces of alcohol. The three solutions are then mixed ; all are shaken together and set aside. Finally a few drops olei ricini and ethereal oil are added to make it more readily spread upon the skin and to deodorize it.

IMITATION OF JAPANESE LACQUER.

According to the *Bayr Gewerbeblatt*, the following makes a most excellent imitation of Japanese lacquer : Mix 90 parts of oil of turpentine and 120 parts of lavender oil, and completely dehydrate by degestation with calcium chloride. To the resultant mixture of oils add 2 parts of camphor and 90 parts of copal. Put the vessel containing the mixture in hot ashes, and shake frequently until these gums are dissolved, and then filter through lint cotton. Set aside in a cool place for twenty-four hours, or until the solution clears, and then decant.—*National Druggist.*

A GLYCEROLE OF COCA.

Fol. erythroxy. coca	4 ounces.
Potass bicarb	15 grains.
Glycerini opt	4 drachms.
Aqua	q.s.

Pack the leaves in a small sieve or percolator, steam them for ten minutes ; whilst warm and moist add the glycerine, keep in warm place, and return all droppings that pass through, for the space of twenty-four to thirty-six hours, then drain and press as thoroughly as possible. Next shake the leaves into a quart of boiling water, in which the carbonate of potassium has been previously dissolved, boil for fifteen minutes, pour off, and boil the leaves with a pint and a half of fresh water for fifteen minutes, pour off, press the exhausted leaves, add the liquors together, concentrate to half a pint, and allow to stand for twenty-four hours. Then evaporate slowly upon a water-bath (filtering if necessary), and towards the latter part of the operation add in the glycerine extract and percolate, evaporating the whole down to the measure of six fluid ounces.

This preparation (of which every three parts by measure represent two parts by weight of the leaves, 1 drachm = about 36 grains of the latter) is a convenient one for many purposes, as being calculated to retain the active properties of the coca unimpaired for a very considerable time, while the leaves themselves, and even some spirituous extracts thereof, are prone to lose all or most of their virtues if kept long.—*Monthly Magazine.*

ARTIFICIAL VESICANT.

Menthol, 1 gramme ; chloral hydrate, 1 gramme ; cacao butter, 2 grammes ; spermaceti, 4 grammes. Make an ointment, and spread on lint or adhesive plaster. This is a mild and painless blister.—*Il Farmacista Italiano.*

Syrup of Phosphates with Cocaine.

Calcis phosph. præcip.*	5 drachms.
Ferri phosph. præcip.*	2 drachms.
Acid phosphor. dil. B.P.	6 ounces.
Tinct. aurant	3 drachms.
Cocaine hydrochlor	24 grains.
Syrup simp. ; s.g., 1.430	q.s.
Acid hydrochlor	q.s.
Aq. dest.	q.s.

Dissolve the moist precipitated phosphates in the phosphoric acid with the aid of *very* gentle heat, not exceeding 115° F., and as little hydrochloric acid as pos-

*These, if not quite freshly precipitated (the weights being calculated in the usual way from the materials employed), must be first dissolved in dilute hydrochloric acid precipitated with ammonia, and well washed.

sible, the latter being added in, a few drops at a time, with constant agitation, until *nearly* all the phosphates are dissolved, when, after maceration and cooling, during which occasional stirring with a rod or wire of soft iron is requisite, the solution must be filtered into about 15 or 16 ounces of the thick syrup.

The hydrochlorate of cocaine should then be dissolved in the tincture of orange peel, and this fluid added to the former, the bulk of the whole being finally made up to 30 fluid ounces by the addition of syrup and distilled water in such proportion that the specific gravity of the complete mixture is not less than 1.200 or more than 1.300, a standard density of 1.250 being preferred.

No special precautions are needed during its use except that the doses should be *small* at first, and only rise to, or nearly to, the maximum by very slow gradations, while it should be discontinued for forty-eight hours when any aperient is required, and also when menstruation is actually proceeding. The commencing adult dose is ½ drachm, which may be gradually increased to 2, 2½, or even 3 drachms, but ordinarily a larger quantity than 1½ to 2 drachms (taken twice a day half an hour before a meal) is not recommended. This syrup is said to keep fairly well, with ordinary precautions respecting low temperature and exclusion of air. As an additional security against undue oxidation or other change, however, it is as well to see that the corks used are the finest obtainable, and are impregnated, or, at least, rubbed over with petrogell or with white paraffin wax. If the bottle be a large one, and very frequently opened, a drop or two of *sp. chloroform* may be advantageously added to its contents every five or six weeks, or a similar result can be attained by suspending from the middle of the cork, but above the surface of the syrup, a small tuft of cotton, the latter being moistened now and then with a little pure chloroform. Of course, a smaller quantity than that here given can be prepared at a time. —*Monthly Magazine of Pharmacy.*

The business of the druggist is partaking more and more of the character of other commercial enterprises, and the pharmacist who would be successful must adapt himself to the changed conditions, and follow the methods pursued by proprietors of fancy goods and department stores. This is not at all surprising when account is taken of the fact that only about one-third, often much less, of the receipts are from prescriptions. The strictly legitimate trade of the druggist is now a minor consideration with many, and he must devote the greater part of his attention to the sale of such articles as were formerly not found in pharmacies. Hence display and the announcement of "bargains" are almost absolutely essential.—*Era.*

Photographic Notes

An Acid Fixing Bath. — During the hot weather frilling of the film is a trouble by no means unknown, and one of the best remedies for it, as well as for the elimination of stains, is the acid or alum and hypo. fixing bath. The addition of acid or alum to hyposulphite of soda always gives rise to the evolution of sulphurous acid and deposition of sulphur.

But if we use an organic acid combined with a sulphite we do not get off the troublesome decompositions, and a concentrated solution of this character may form a saleable article :

Sodium sulphite	2 ozs.
Citric acid	½ oz.

Dissolve the sulphite in 3 ozs. of warm water and the citric acid in 1 oz. of water ; mix the two solutions and add to a pint of hypo. solution 1:4.

If an alum bath is required the citric acid in the above formula may be replaced with chrome alum.

Instead of the above solution the commercial sodium bisulphite may be sold for the same purpose, and 1 oz. of this should be directed to be added to every pint of hypo. solution.

All these acid fixing baths can be used for any commercial plates, for ordinary negative work, and bromide prints, but they must not be used for any printing out papers.—*Pharmaceutical Journal.*

Nature Printing. — This process should commend itself to all who study botany and other branches of natural history, inasmuch as it enables faithful and accurate copies of specimens to be made *without the aid of a camera.* The method of working is as follows :

We shall want a printing frame, a piece of good stout glass, free from flaws, cut to fit the frame ; and some gelatino-chloride paper. Having procured a specimen, such as a spray of maidenhair fern, or, as in the example, a skeleton poplar leaf, we place it in the frame behind the glass, and over it a piece of sensitive paper (care must be taken to place the flatter side of the specimen against the paper) ; expose the whole to a bright sun until the background, or uncovered portions of the paper, have darkened as much as they will ; then take the resulting negative print, and tone to a good non-actinic tone, such as chocolate ; fix in the ordinary manner, wash and dry as in a print.

In printing a positive it is only necessary to place a new piece of paper in the frame in contact with the negative print, using the glass as before, and print in bright sunlight. The printing, of course, takes a long time, owing to the light having to permeate through the paper.—*Edward M. White, in the Photogram.*

Clinical Photography. — Photography has proved a most valuable aid to the physician, and the increased use during the last few years of photography for obtaining records of clinical conditions is a great advance in clinical methods. In many cases no verbal description can surpass a good photograph of the patient,and the value of the preservation of such photographs for comparison with the condition presented by the patient at a later date can hardly be exaggerated. Further, the preservation of such portraits and their comparison with the condition of the patients at later dates will often give valuable assistance in determining whether the treatment should be modified or resumed. In the same way photographs of diseased or injured portions of the body will often be of the greatest service, not only as contributing by their accuracy to the advance of medicine, but also in the interests of the individual patient.—*American Journal of Photography.*

Coloring Photographs.—I noticed in the correspondence columns the other day an inquiry regarding how to color photographs, and in this connection the following particulars of a method recently patented in Germany may be useful. Hector Kraus is the inventor. The colors used are the ordinary synthetic dyes, of which strong aqueous or alcoholic solutions are made, and diluted with spirit, or a proof spirit, made by mixing equal parts of S.V.R. and acetic acid. The photographs, no matter on what paper or by what process they are made, are colored before they are mounted, and for this purpose are put into a retouching frame, or a similar apparatus, on which it can be seen by transmitted light; then the colors of the proper shade are applied with the brush on the back of the print. It is only necessary to keep exactly the contours, or different outlines of the pictures. As the colors penetrate the paper quickly it is easy to control the progress of the work, and to apply the colors within the limits where they are necessary. By turning over the print it can be observed how the colors appear on the front, and it is possible to exactly judge the effect produced, and, if necessary, to strengthen it by the application of further tints. After the picture is colored to satisfaction it can be mounted and burnished like any other photograph; small high lights and finishing touches, such as jewelry or other small details, can afterwards be applied with ordinary body colors on the front side of the picture.—*Chemist and Druggist.*

Prize Photographic Competition.— The publishers of *The Photogram* have announced a series of prize competitions in connection with their magazine. Over $1200 in prizes will be distributed in the various competitions, which are as follows: (1) For the best half-dozen photograms suitable to use as initial letters, head pieces,or tail pieces; (2) for the best letter of not more than 1000 words, giving advice and suggestions for the improvement

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of *The Photogram*; (3) for the best suggestion as to how *The Photogram* challenge shield could be best used for the advancement of photography in its widest sense; (4) for the best practical article on a photographic subject, to consist of not less than 1000 and not more than 5000 words—may be illustrated or not; (5) for the best practical article on a photo-mechanical subject, with same stipulations as No. 4; also (6) classes in landscape competition, and a societies' competition. All information may be obtained from the publishers of *The Photogram*, 6 Farringdon Avenue, London, E.C., England.

Black Varnish.—This varnish is still in much request for stopping out skies, and it answers tolerably well for preventing halation when applied to the back of a plate. A quick-drying varnish is made as follows:

Asphaltum	3 oz.
Gutta-percha	gr. xx.
Lampblack	½ oz.
Benzine	10 oz.

Macerate the asphalt and gutta-percha in the benzine till dissolved; then mix in the lampblack.—*Chemist and Druggist.*

Platinum Toning Baths for Chloride Papers.—Platinum toning is now all the rage for both gelatino and collodio chloride papers, particularly those with matt surface, and either a liquid or a dry bath may be put up for sale.

Liquid Bath.

Potassium chloroplatinite	30 grs.
Lactic acid (sp. g., 1.21)	155 m.
Distilled water	10 oz.

Directions for use—Dilute this solution with double its volume of water before use.

Dry Powder.

Potassium chloroplatinite	15 grs.
Sodium lactate	150 "
Acid sulphate or phosphate of soda	150 "

Directions for use—Dissolve the powder in 35 ozs. of water.

For platinum toning there are three or four conditions which must be fulfilled, and these should be included in the shape of a circular with these baths. After printing, the prints should be placed in a solution of salt, 2 oz.; water, 20 oz., for at least ten minutes, and kept on the move. They should then be washed for five minutes and toned, and, when toning is complete, transferred to a solution of washing soda, about 1:20, and thence, after about five minutes, to a fixing bath composed of:

Hypo	2½ oz.
Sodium sulphite	1 "
Sodium carbonate	½ "
Water	20 "

and then thoroughly washed. The above toning baths will keep any length of time, do not eat out the details of the high lights, and will tone several prints in succession, giving sepia brown to brownish black tones, according to the depth of printing and length of stay in the toning bath. The only difficulty about platinum toning is that it is extremely difficult to tell what the final tone will be, as the printed-out image is either yellowish or reddish-purple, and the deposited platinum is black, so that on fixing we have the purple tone destroyed, and the effect of the yellow silver image added to the finely divided platinum black. *Pharmaceutical Journal.*

Pharmacy Abroad.

Which is the Land of the Cutter?—The Danish Pharmaceutical Society has been curious to know what medicines cost in various countries, and about two years ago sent round a prescription, with the following results:

Denmark	100
Norway	116
Austria	117
Hungary	125
Sweden	126
Belgium	141
Germany	145
Holland	147
Switzerland	149
Portugal	163
Russia	197
Italy	242
France	247
England	259
United States	350

The figures represent the proportionate cost. It is rather curious that the three countries in which prices of medicines are not controlled by law appear by the list to be the dearest; yet we feel that the 259 put against England could be much reduced by judicious selection of the shop at which to present the prescription. We have on record as much variation of prices in England as is shown by the table.—*Chemist and Druggist.*

The Italian Government have established a station in New York city for the purpose of analyzing the olive oils and wines which come from that country. For many years past the adulteration of these goods has been largely practised, and it is hoped now that a stop will be put to the practice, and that the purity of olive oil and Italian wines will be unquestioned.

Pharmacists and Medical Men in Belgium.—In the report of the Pharmaceutical Congress held at Brussels it is interesting to notice that the Belgian Minister of Agriculture stated, by his deputy, that the government intended to suppress the practice of medical men supplying their patients with medicine. It appears that a commission has been appointed to draw up new medico-pharmaceutical laws, and the chief work of the congress was the consideration of such matters as might assist the government in rendering those laws generally satisfactory. Amongst the more important conclusions arrived at, after due deliberation, were those which recognize (*a*) the necessity of suppressing the system by which numerous pharmacies are conducted by managers instead of legally qualified proprietors, and (*b*) the desirability of establishing a minimum tariff. It was also considered desirable to limit the number of pharmacies, either by legal enactment or by increasing the stringency of the examinations. The latter plan has already proved effectual in reducing the number of pharmaceutical students in Belgium. The idea of establishing unanimity in the prices charged for dispensing medicines, by marking the sum charged on the prescription, is also worthy of note, as well as the suggestion that the pharmacien should make it his business to analyze alimentary substances. The congress is stated to have been extremely successful from all points of view, and the whole report will be found of considerable interest to British pharmacists. —*Pharmaceutical Journal.*

Drug Trade Regulations in Japan.—A few months ago the subject of Japanese regulations in the drug trade was frequently discussed, and much dissatisfaction appeared to exist on the part of certain manufacturers whose productions were interfered with by the Japanese authorities. On this point we have caused inquiries to be made in Japan, the answers to which enable us to publish the following statements. There is, we are informed, no regulation in Japan under which imported drugs must be analyzed. Physicians are now required to use the chemicals and drugs prescribed in the Japanese Pharmacopœia, and those only, and the wholesale druggists usually obtain the guarantee of the Hygienic Laboratories established by government, or of those started by private enterprise, such as the Osaka Drugs Examination Company, known in Japanese as the Yakuhin-shiken-kaisha of Osaka, for their chemicals and drugs, simply as a satisfaction to themselves and a means of securing the confidence of buyers. Of course, any chemicals or drugs which do not come up to the standard of purity prescribed in the Pharmacopœia are not used by physicians. The preparations, however, of such makers as Nippon Seiyaku Kaisha, of Tokio, are sold without a guarantee of the Hygienic Laboratory. As regards the report that certain proprietary medicines have been submitted to analysis and rejected, we are informed that the regulations regarding proprietary medicines simply require that no poison shall be contained in them. Even very small quantities of dangerous medicines and drugs are prohibited if the authorities think that such quantities may be the source of danger if taken imprudently. Hence, certain well-known proprietary preparations largely used in this country are not allowed to be sold to the public in Japan, but only to physicians or those bringing physicians' prescriptions. Such medicines as Scott's Emulsion of Cod-Liver Oil with Hypophosphites, Ayer's

Hair-Restorer, or Brandreth's Plasters are sold with government stamps upon them, and they are, our informant assures us, selling well. We may add that the stamp duty of such medicines is now one *rin*, or the 1000th part of a silver dollar, for those costing 2 *sen* (1 *sen* being the 100th part of a dollar) per bottle or package; 3 *rin* for those under 3 *sen*; 5 *rin* for those under 5 *sen*; 1 *sen* for those under 10 *sen*; and 5 *rin* for every 5 *sen* above 10 *sen*. With regard to the standard of purity which the Japanese set up, it is impossible to understand why any one should complain that it cannot always be met. The Japanese Pharmacopœia standard is not so high that English makers cannot produce drugs of the required purity. If it be compared with that of this country, or with the pharmacopœias of Germany, France, the United States, or Holland, it will at once be seen that the standard of Japanese drugs is not much higher than that of other countries. There should, therefore, be no difficulty on the part of manufacturing chemists in producing drugs of a standard to which even Japanese makers can attain, there being but one standard to which both Japanese and foreign-made chemicals must conform. If any English-made fine chemicals or drugs have been driven from the Japanese market, it is not, we believe, on account of the high standard of purity required, but because British firms have not set themselves to compete with the lower prices of German goods. Let but manufacturers turn out goods according to the prescriptions of the Japanese Pharmacopœia as cheaply as those of Continental firms, and there will be no reason why their chemicals and drugs should not find a very large sale in the Japanese market. At present, our informant points out, the victory rests with the Continental merchants and manufacturers, who do their utmost to extend business by studying and conforming to the special requirements of the Japanese market.—*British Trade Journal.*

Colutic Acid.

G. Barbey gives this name (*acide colutéique*) to a compound extracted by him from the leaves of bladder senna, *Colutea arborescens* (Leguminosæ). The acid is insoluble in cold water, soluble in sixty times its weight of boiling water, and crystallizes in spangles on the solution cooling. From an alcoholic solution, however, it crystallizes in fine needles. It is also soluble in chloroform and in carbon disulphide, and melts at 136°.5 C. The compound reddens litmus, forms salts with soda or ammonia, resembles the phenols in certain of its reactions, and in others appears analogous to cinnamic acid.—(*L'union pharm.*).—*Phar. Journal.*

Cupratin is a combination of copper with albumen similar to ferratin made by Fihlene.

Business Notices.

As the design of the CANADIAN DRUGGIST is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the CANADIAN DRUGGIST.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the *special consideration* of the Business Notices.

TO IMPORTERS.—We direct attention to the card of Mr. F. Graf on page 218b of this issue.

SEND A TRIAL ORDER.—We invite the attention of the trade to the price list of the Royal Oil Company on page 232 of this issue. The goods are right and the prices low.

HONEY AND HOREHOUND.—An excellent name and an excellent article is this cough tablet advertised by Lawson & Jones on page 224a this month. Write them for sample and price.

ONE MINUTE.—The Key Medicine Co. advertise their One Minute Headache Cure in this issue. This article is having a large and steadily increasing sale, and is guaranteed perfectly safe.

"KOFF NO MORE."—Watson's Cough Drops, so universally known throughout Canada, have proved remarkable sellers, and the secret of it is, they act promptly, are pleasant and safe to use, and are always the same.

DRUGGISTS' CONFECTIONERY.—On the third page of cover will be found an advertisement of the McCormick Manufacturing Co., of London, Canada, who offer to the trade a full line of confectionery, similar to the English goods, in twelve flavors; a line also of Buttercups, a very choice confection, in twelve kinds. These goods are first-class, handsomely put up, and the reputation of the firm is sufficient to guarantee all their manufactures. They also manufacture the celebrated Menthol Cough Drop, which had an extremely large sale last year, and is one of the most popular cough tablets in the market.

A NEW ANTISEPTIC.—The treatment of many medical and all surgical conditions is, at the present time, largely based on the principles of antisepsis, and constant efforts have been made to secure some agent that would be generally applicable. The Borine Chemical Company, of New York, believe that in their preparation "Borine" they have an article which is in every sense desirable. It is composed of the active constituents of benzoin, wintergreen, meadowsweet, golden rod, witch hazel, combined with the stearoptenes of wild thyme, eucalyptus, peppermint, and boracic acid. Its agreeable qualities adapt it for daily use in the toilet, as a mouth wash and as a prophylactic for general use for maintaining hygienic measures. A postal card sent to the Borine Chemical Company, 21 West 23rd street, New York, will bring an interesting brochure on "External and Intestinal Antisepsis."

A Tried Remedy.

Dr. B. W. Hair's Asthma Cure is a remedy that has stood the test of years, and is undoubtedly one of the most successful preparations for this trouble. Read the following letter carefully:

SWANSEA CENTRE, MASS., July 20, 1895.
DR. B. W. HAIR:

I am pleased to say that I find everything in your statement just as you say in regard to my disease. Yes, I can see it is leaving me; every year, it grows less and less. It commenced later this year and I haven't had a symptom of it for the last three weeks, and have only had a very few sneezing spells, and those at the very beginning; and now I am gaining in flesh and strength very fast.

I have taken only one bottle this year, where last year I took three, I think, and last year was better than the year before; this makes the three seasons. I hope I can send you a line next year saying I haven't it at all, so you can put it in print. I have some friends taking the medicine, who prize it very highly.

Hoping to be able to make a good report next year, if we are all living, I remain,

Very truly,
MRS. A. L. BATTLES.

Druggists as Opticians.

That pharmacists are now becoming thoroughly interested in the science of optics is evident from the number of students who have taken a course of instruction at the Optical Institute of Canada. These classes, conducted by Mr. Lawrence, are now held in connection with the Toronto branch of the Montreal Optical Company, at No. 60 Yonge street, and are attracting students from all parts of the province. The following are amongst those druggists and drug clerks who have already obtained diplomas and are qualified to act as opticians:

Mr. Brown, Cornwall.
J. Findlay, Pembroke.
T. Stevenson, Orangeville.
J. P. Lamb, Athens.
E. C. Mitchell, Kingston.
Mr. Higginbotham, Milton.
S. Scott, Newmarket.
J. W. Browett, Ingersoll.
Mr. Howell, Galt.
R. T. Kyle, Strathroy.
H. Powell, Stouffville.
T. B Welch, Strathroy.
W. M. Kirkland, Galt.
J. A. Austin, Toronto.
J. Thomson, Bracebridge.
S W. Hobart, Kingston.
W. Barr, Hamilton.
J. E. Davis, Goderich.
G. A. Deadman, Brussels.
S. C. Lamb, Athens.
P. L. Scott, Paris.
J. A. Stewart, Meaford.
W. W. Porte, Brighton.
W. H. Scripture, Toronto.
J. J. Gilfillan, Orono.

- - - DRUGGISTS - - -

we desire to show you

The Handsomest Line of Christmas Perfumes

The Leading Line of the World
Without a Rival in the Field

Send us your name and address and we will arrange to see you. Agents now at work in all portions of the United States and Canada.

Up-to-date Ideas in Perfumes Pay

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NEW CATALOGUE MAILED ON APPLICATION.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to October 10th, 1895.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal	$4 37	$4 65
Methyl	1 90	2 00
ALLSPICE, lb	13	15
Powdered, lb	15	17
ALOIN, oz	40	45
ANODYNE, Hoffman's bot., lbs	50	55
ARROWROOT, Bermuda, lb	50	55
St. Vincent, lb	15	18
BALSAM, Fir, lb	40	45
Copaiba, lb	65	75
Peru, lb	3 75	4 00
Tolu, can or less, lb	65	75
BARK, Barberry, lb	22	25
Bayberry, lb	15	18
Buckthorn, lb	15	17
Canella, lb	15	17
Cascara, Sagrada	25	30
Cascarilla, select, lb	18	20
Cassia, in mats, lb	18	20
Cinchona, red, lb	60	65
Powdered, lb	65	70
Yellow, lb	35	40
Pale, lb	40	45
Elm, selected, lb	18	20
Ground, lb	17	20
Powdered, lb	20	28
Hemlock, crushed, lb	18	20
Oak, white, crushed lb	15	17
Orange peel, bitter, lb	15	16
Prickly ash, lb	35	40
Sassafras, lb	15	16
Soap (quillaya), lb	13	15
Wild cherry, lb	13	15
BEANS, Calabar, lb	45	50
Tonka, lb	1 50	2 75
Vanilla, lb	6 00	8 50
BERRIES, Cubeb, sifted, lb	30	35
powdered, lb	35	40
Juniper, lb	7	10
Ground, lb	12	14
Prickly ash, lb	40	45
BUDS, Balm of Gilead, lb	55	60
Cassia, lb	25	30
BUTTER, Cacao, lb	75	80
CAMPHOR, lb	80	85
CANTHARIDES, Russian, lb	1 40	1 50
Powdered, lb	1 50	1 60
CAPSICUM, lb	25	30
Powdered, lb	$ 30	35
CARBON, Bisulphide, lb	17	18
CARMINE, No. 40, oz	40	50
CASTOR, Fibre, lb	20 00	20 00
CHALK, French, powdered, lb	10	12
Precip., see Calcium, lb	10	12
Prepared, lb	5	6
CHARCOAL, Animal, powd., lb	4	5
Willow, powdered, lb	20	25
CLOVE, lb	16	17
Powdered, lb	17	18
COCHINEAL, S.G., lb	40	45
COLLODION, lb	75	80
Cantharidal, lb	2 50	2 75
CONFECTION, Senna, lb	40	45
Creosote, Wood, lb	2 00	2 50
CUTTLEFISH BONE, lb	25	30
DEXTRINE, lb	10	12
DOVER'S POWDER, lb	1 50	1 60
ERGOT, Spanish, lb	75	80
Powdered, lb	90	1 00
Ergotin, Keith's, oz	2 00	2 10
EXTRACT, Logwood, bulk, lb	13	14
Pounds, lb	14	17
FLOWERS, Arnica, lb	15	20
Calendula, lb	55	60
Chamomile, Roman, lb	30	35
German, lb	40	45
Elder, lb	20	22
Lavender, lb	12	15
Rose, red, French, lb	1 60	2 00
Rosemary, lb	25	30
Saffron, American, lb	65	70
Spanish, Val'a, oz	1 00	1 25
GELATINE, Cooper's, lb	75	80
French, white, lb	35	40
GLYCERINE, lb	17	18
GUARANA	3 00	3 25
Powdered, lb	3 25	3 50
GUM ALOES, Cape, lb	18	20
Barbadoes, lb	30	50
Socotrine, lb	65	70
Asafœtida, lb	40	45
Arabic, 1st, lb	65	70
Powdered, lb	75	85
Sifted sorts, lb	40	45
Sorts, lb	25	30
Benzoin, lb	50	1 00
Catechu, Black, lb	9	20
Gamboge, powdered, lb	1 20	1 25
Guaiac, lb	50	1 00
Powdered, lb	70	75
Kino, true, lb	2 00	2 25
Myrrh, lb	$ 45	$ 48
Powdered, lb	55	60
Opium, lb	3 35	3 50
Powdered, lb	5 00	5 25
Scammony, pure Resin, lb	12 80	13 00
Shellac, lb	45	48
Bleached, lb	45	50
Spruce, true, lb	30	35
Tragacanth, flake, 1st, lb	75	80
Powdered, lb	1 00	1 10
Sorts, lb	45	65
Thus, lb	8	10
HERB, Althea, lb	27	30
Bitterwort, lb	36	40
Burdock, lb	16	18
Boneset, ozs, lb	15	17
Catnip, ozs, lb	17	20
Chiretta, lb	25	30
Coltsfoot, lb	20	38
Feverfew, ozs, lb	53	55
Grindelia robusta, lb	45	50
Horehound, ozs., lb	18	20
Jaborandi, lb	45	50
Lemon Balm, lb	38	40
Liverwort, German, lb	38	40
Lobelia, ozs, lb	15	20
Motherwort, ozs., lb	20	22
Mullein, German, lb	17	20
Pennyroyal, ozs., lb	18	20
Peppermint, ozs., lb	21	22
Rue, ozs., lb	30	35
Sage, ozs., lb	18	20
Spearmint, lb	21	25
Thyme, ozs., lb	18	20
Tansy, ozs., lb	15	18
Wormwood, oz	20	22
Yerba Santa, lb	38	44
HONEY, lb	13	15
HOPS, fresh, lb	20	25
INDIGO, Madras, lb	75	80
INSECT POWDER, lb	25	28
ISINGLASS, Brazil, lb	2 00	2 10
Russian, true, lb	6 00	6 50
LEAF, Aconite, lb	25	30
Bay, lb	18	20
Belladonna, lb	25	30
Buchu, long, lb	50	55
Short, lb	20	22
Coca, lb	35	40
Digitalis, lb	15	20
Eucalyptus, lb	18	20
Hyoscyamus	20	25
Matico, lb	70	75

Senna, Alexandria, lb	$ 25	$ 30
Tinnevelly, lb	15	25
Stramonium, lb	20	25
Uva Ursi, lb	15	18
LEECHES, Swedish, doz	1 00	1 10
LICORICE, Solazzi	45	50
Pignatelli	35	40
Grasso	30	35
Y & S—Sticks, 6 to 1 lb., per lb.	27	30
" Purity, 100 sticks in box	75	75
" Purity, 200 sticks in box	1 50	1 50
" Acme Pellets, 5 lb. tins	2 00	2 00
" Lozenges, 5 lb. tins	2 00	2 00
" Tar, Licorice, and Tolu, 5 lb. tins	2 00	2 00
LUPULIN, oz	30	35
LYCOPODIUM, lb	70	80
MACE, lb	1 20	1 25
MANNA, lb	1 60	1 75
Moss, Iceland, lb	9	10
Irish, lb	9	10
MUSK, Tonquin, oz	46 00	50 00
NUTGALLS, lb	21	25
Powdered, lb	25	30
NUTMEGS, lb	1 00	1 10
NUX VOMICA, lb	10	12
Powdered, lb	25	27
OAKUM, lb	12	15
OINTMENT, Merc., lb. ½ and ½	70	75
Citrine, lb	45	50
PARALDEHYDE, oz	20	22
PEPPER, black, lb	12	13
Powdered, lb	15	16
PITCH, black, lb	3	4
Bergundy, true, lb	10	12
PLASTER, Calcined, bbl. cash	2 25	3 25
Adhesive, yd	12	13
Belladonna, lb	65	70
Galbanum Comp., lb	80	85
Lead, lb	25	30
POPPY HEADS, per 100	1 00	1 10
ROSIN, Common, lb	2½	3
White, lb	3½	4
RESORCIN, white, oz	25	30
ROCHELLE SALT, lb	25	28
ROOT, Aconite, lb	22	25
Althea, cut, lb	30	35
Belladonna, lb	25	30
Blood, lb	15	16
Bitter, lb	27	30
Blackberry, lb	15	18
Burdock, crushed, lb	18	20
Calamus, sliced, white, lb	20	25
Canada Snake, lb	30	35
Cohosh, black, lb	15	20
Colchicum, lb	40	45
Columbo, lb	20	22
Powdered, lb	25	30
Coltsfoot, lb	38	40
Comfrey, crushed, lb	20	25
Curcuma, powdered, lb	13	14
Dandelion, lb	15	18
Elecampane, lb	15	20
Galangal, lb	15	18
Gelsemium, lb	22	25
Gentian or Genitan, lb	9	10
Ground, lb	10	12
Powdered, lb	13	15
Ginger, African, lb	18	20
Po., lb	20	22
Jamaica, blchd., lb	27	30
Po., lb	30	35
Ginseng, lb	4 50	4 75
Golden Seal, lb	75	80
Gold Thread, lb	90	95
Hellebore, white, powd., lb	12	15
Indian Hemp	18	20
Ipecac, lb	1 30	1 50
Powdered, lb	1 60	1 70
Jalap, lb	55	60
Powdered, lb	60	65
Kava Kava, lb	40	90
Licorice, lb	12	15
Powdered, lb	13	15
Mandrake, lb	13	18
Masterwort, lb	16	40
Orris, Florentine, lb	30	35
Powdered, lb	40	45
Pareira Brava, true, lb	40	45
Pink, lb	40	45
Parsley, lb	30	35
Pleurisy, lb	20	25
Poke, lb	15	18
Queen of the Meadow, lb	$ 18	$ 20
Rhatany, lb	20	30
Rhubarb, lb	75	2 50
Sarsaparilla, Hond, lb	40	45
Cut, lb	50	55
Senega, lb	55	65
Squill, lb	13	15
Stillingia, lb	22	25
Powdered, lb	25	27
Unicorn, lb	38	40
Valerian, English, lb. true	20	25
Virginia, Snake, lb	40	45
Yellow Dock, lb	15	18
RUM, Bay, gal	2 50	2 75
Essence, lb	3 00	3 25
SACCHARIN, oz	1 25	1 50
SEED, Anise, Italian, sifted, lb	13	15
Star, lb	35	40
Burdock, lb	30	35
Canary, bag or less, lb	5	6
Caraway, lb	10	13
Cardamom, lb	1 25	1 50
Celery	25	30
Colchicum	50	60
Coriander, lb	10	12
Cumin, lb	15	20
Fennel, lb	15	17
Fenugreek, powdered, lb	7	9
Flax, cleaned, lb	3½	4
Ground, lb	4	5
Hemp, lb	5	6
Mustard, white, lb	11	12
Powdered, lb	15	20
Pumpkin	25	30
Quince, lb	65	70
Rape, lb	8	9
Strophanthus, oz	50	55
Worm, lb	22	25
SEIDLITZ MIXTURE, lb	25	30
SOAP, Castile, Mottled, pure, lb	10	12
White, Conti's, lb	15	16
Powdered, lb	25	35
Green (Sapo Viridis), lb	15	25
SPERMACETI, lb	55	60
TURPENTINE, Chian, oz	75	80
Venice, lb	10	12
WAX, White, lb	50	75
Yellow	40	45
WOOD, Guaiac, rasped	5	6
Quassia chips, lb	10	12
Red Saunders, ground, lb	5	6
Santal, ground, lb	5	6

CHEMICALS.

ACID, Acetic, lb	12	13
Glacial, lb	45	50
Benzoic, English, oz	20	25
German, oz	10	12
Boracic, lb	13	14
Carbolic Crystals, lb	25	30
Calvert's No. 1, lb	2 10	2 15
No. 2, lb	1 35	1 40
Citric, lb	45	50
Gallic, oz	10	12
Hydrobromic, diluted, lb	30	35
Hydrocyanic, diluted, oz. bottles doz	1 50	1 60
Lactic, concentrated, oz	22	25
Muriatic, lb	3	5
Chem, pure, lb	18	20
Nitric, lb	10½	13
Chem. pure, lb	25	30
Oleic, purified, lb	75	80
Oxalic, lb	12	13
Phosphoric, glacial, lb	1 00	1 10
Dilute, lb	13	17
Pyrogallic, oz	35	38
Salicylic, white, lb	1 00	1 10
Sulphuric, carboy, lb	2½	2¾
Bottles, lb	5	6
Chem. pure, lb	18	20
Tannic, lb	80	85
Tartaric, powdered, lb	35	38
ACETANILID, lb	80	85
ACONITINE, grain	4	5
ALUM, cryst., lb	1¾	3
Powdered, lb	3	4
AMMONIA, Liquor, lb., .880	10	12
AMMONIUM, Bromide, lb	80	85
Carbonate, lb	14	15
Iodide, oz	35	40
Nitrate, crystals, lb	40	45
Muriate, lb	12	16
Valerianate, oz	$ 55	$ 60
AMYL, Nitrite, oz	16	18
ANTINERVIN, oz	85	00
ANTIKAMNIA	1 25	1 30
ANTIPYRIN, oz	1 00	1 10
ARISTOL, oz	1 85	2 00
ARSENIC, Donovan's sol., lb	25	30
Fowler's sol., lb	10	13
Iodide, oz	50	55
White, lb	6	7
ATROPINE, Sulp. in ⅛ ozs. 80c., oz	6 00	6 25
BISMUTH, Ammonia-citrate, oz	35	40
Iodide, oz	50	55
Salicylate, oz	25	30
Subcarbonate, lb	2 25	2 40
Subnitrate, lb	1 75	1 80
BORAX, lb	7	8
Powdered, lb	8	9
BROMINE, oz	8	13
CADMIUM, Bromide, oz	20	25
Iodide, oz	45	50
CAFFEINE, oz	60	65
Citrate, oz	60	65
CALCIUM, Hypophosphite, lb	1 50	1 60
Iodide, oz	95	1 00
Phosphate, precip., lb	35	38
Sulphide, oz	5	6
CERIUM, Oxalate, oz	10	12
CHINOIDINE, oz	15	18
CHLORAL, Hydrate, lb	1 25	1 30
Croton, oz	75	80
CHLOROFORM, lb	60	1 90
CINCHONINE, sulphate, oz	25	30
CINCHONIDINE, Sulph., oz	15	20
COCAINE, Mur., oz	6 00	7 00
CODEIA, ⅛ oz	80	90
COLLODION, lb	65	70
COPPER, Sulph., (Blue Vitriol) lb.	6	7
Iodide, oz	65	70
COPPERAS, lb	1	3
DIURETIN, oz	1 60	1 65
ETHER, Acetic, lb	75	80
Sulphuric, lb	40	50
EXALGINE, oz	1 00	1 10
HYOSCYAMINE, Sulp., crystals, gr.	25	30
IODINE, lb	4 75	5 50
IODOFORM, lb	6 00	7 00
IODOL, oz	1 40	1 50
IRON, by Hydrogen	80	85
Carbonate, Precip., lb	15	16
Sacch., lb	30	35
Chloride, lb	45	55
Sol., lb	13	16
Citrate, U.S.P., lb	90	1 00
And Ammon., lb	70	75
And Quinine, lb	1 50	3 00
Quin. and Stry., oz	18	30
And Strychnine, oz	13	15
Dialyzed, Solution, lb	50	55
Ferrocyanide, lb	55	60
Hypophosphites, oz	25	30
Iodide, oz	40	45
Syrup, lb	40	45
Lactate, oz	5	6
Pernitrate, solution, lb	15	16
Phosphate scales, lb	1 25	1 30
Sulphate, pure, lb	7	9
Exsiccated, lb	8	10
And Potass. Tartrate, lb	80	85
And Ammon Tartrate, lb	80	85
LEAD, Acetate, white, lb	13	15
Carbonate, lb	7	8
Iodide, oz	35	40
Red, lb	7	9
LIME, Chlorinated, bulk, lb	4	5
In pakages, lb	6	7
LITHIUM, Bromide, oz	0	35
Carbonate, oz	30	35
Citrate, oz	25	30
Iodide, oz	50	55
Salic ate, oz	35	40
MAGNESIUM, Calc., lb	55	60
Carbonate, lb	18	20
Citrate, gran., lb	35	40
Sulph. (Epsom salt), lb	1¾	3
MANGANESE, Black Oxide, lb	5	7
MENTHOL, oz	55	66
MERCURY, lb	75	80
Ammon (White Precip.)	1 25	1 30
Chloride, Corrosive, lb	1 00	1 10
Calomel, lb	1 00	1 10
With Chalk, lb	60	65

Books and Magazines.

"Maisch's Materia Medica." New (6th) edition. A Manual of Organic Materia Medica; being a guide to Materia Medica of the Vegetable and Animal Kingdoms. For the use of students, druggists, pharmacists, and physicians. By John M. Maisch, Phar.D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. New (sixth) edition, thoroughly revised by H. C. C. Maisch, Ph.G. In one very handsome 12mo. volume of 509 pages, with 285 engravings. Cloth, $3.00. Philadelphia: Lea Brothers & Co, Publishers, 1895. This work, which has a world-wide reputation, and is a recognized standard in Materia Medica both in Europe and America, has in this edition received several additions and alterations rendered necessary mainly by reason of the publication of the new edition of the United States Pharmacopœia. Any extended notice of a work so well known and so universally used as a text-book would be superfluous. The present volume is beautifully illustrated and somewhat condensed in form, and is fully abreast of the times. As a repertory of information for the druggist and student it secures the greatest convenience in use, and has no superior as an imparter of knowledge, both in accuracy and thoroughness.

Edward Bok, the editor of *The Ladies' Home Journal*, has written a book for young men, called "Successward: A Young Man's Book for Young Men," which the Revells will publish in a fortnight. The book aims to cover all the important phases of a young man's life: his business life, social life, his amusements, religious life, dress, his attitude toward women, and the question of his marriage. This is Mr. Bok's first book.

The October number of *The Delineator* is called the autumn number, and contains a choice and varied selection of timely articles. It gives an authoritative exposition of autumn styles, illustrating a variety of novel, artistic, and beautiful garments. The progress of co-education in Great Britain is further explained by Amy Rayson. Bookbinding as an occupation for women is entertainingly described by Evelyn Hunter Nordhoff. Lucia M. Robbins describes a new and amusing form of entertainment. Address communications to The Delineator Publishing Co. of Toronto, Ltd., 33 Richmond Street West, Toronto, Ont. Subscription price of *The Delineator*, $1.00 per year, or 15c. per single copy.

Frank Leslie's Popular Monthly for October is an exceptionally beautiful number pictorially, without any sacrifice of that quality of timeliness which makes it unique amongst illustrated magazines. The opening article is an idyllic description, by Mrs. Leicester-Addis, of a summer holiday visit to old England's loveliest county, Surrey, with a description of the stately manor of Deepdene, upon which the present American Duchess of Marlborough has spent large sums of money to good purpose. Apropos of this year's tercentennial Tasso celebration, there is a sympathetic and elaborately illustrated paper on "The Last Days of Torquato Tasso," by Marie Walsh. This number also contains some unusually interesting short stories and poems.

A new monthly illustrated magazine for young people has just been started by Frank Leslie's Publishing House. It is called *Frank Leslie's Pleasant Hours for Boys and Girls*, and is in every way equal to the best publications of its kind, although the price is but 10 cents. The first number (October) contains the opening chapters of a serial story for boys by Edward S. Ellis, and one for girls by Jeannette H. Walworth. There are short stories by Oliver Optic and Rebecca Harding Davis; a football story by Henry E. Haydock; bicycle stories by Max I. Harvey and A. L. Millet; an article giving some "Hints on Trapping," by F. L. Oswald; a paper telling how to turn a heap of rubbish into pretty ornaments, by Adele Beard; several illustrated poems and practical descriptions of novel tricks and games and puzzles. The editor of the new magazine is Frank Lee Farnell, who has been connected with Frank Leslie's Publishing House for a number of years, and who thoroughly understands what will please and interest the young people.

Lincoln's apprehensive distrust of marriage is revealed in some extremely interesting letters from the great President in the October *Ladies' Home Journal*, in which John Gilmer Speed discusses "Lincoln's Hesitancy to Marry." The letters are given publicity for the first time, and are addressed to Lincoln's most intimate friend, Joshua Speed. Edward S. Martin presents a review of the various theories advanced by scientists in the effort to definitely locate the Garden of Eden site, and shows how far from solution is the problem. Dr. Parkhurst's October article treats of "Religion in the Family," and is one of the most forcible arguments that have come from his pen. Edward W. Bok editorially discusses "Where American Life Really Exists," and outlines those communities where its best and purest phases are found. Robert J. Burdette contributes "The Strike in the Choir," a humorous article in his brightest vein. The best works of such artists as W. L. Taylor, B. West Clinedinst, Frank O. Small, Alice Barber Stephens, Abby E. Underwood, and F. Schuyler Mathews are shown in the current issue. The October *Journal* blends interest, entertainment, instruction, usefulness, and artistic excellence, and is the magazine *par excellence* for the home. It is published by The Curtis Publishing Company, Nos. 421-427 Arch Street, Philadelphia, at ten cents per copy; one dollar a year.

Device for Filling Gelatin Capsules.

A practical device for filling gelatin capsules with liquid medicaments has been constructed by Mr. Tschanter, of Oppein (*Pharmaceutische Centralhalle*, 1895, p. 289). It consists of two small pieces of wood, held together by means of a rubber band. The upper one is provided with a dozen holes of suitable size to receive the lower halves of the capsules. A strip of paper with star-like punctures is suitably placed over the holes, and fastened by means of a small clamp on each end. If the capsules to be filled are now introduced through the punctures in the paper, they will be held sufficiently tight and safe.

The filling is done by means of a specially adapted pipette. The terminus of the pipette is provided with a suitable cone-shaped rod, regulated by the forefinger. When the lower halves are filled, the portion projecting over the paper strip is painted with gelatin solution, and the cover capsules immediately placed thereon, which insures a perfect closure. We would suggest mucilage of acacia or tragacanth, either of which is generally kept in stock, and has always proved to be a good sealing medium for gelatin capsules.—*Meyer Brothers Druggist.*

Who Owns the Prescription?

This is a query that continually perplexes the druggist, the doctor, and his patient Our advice to pharmacists is to stick to the document "like a limpet to a rock," as our eastern friends say.

The ownership of the prescription has been settled by law in New York, Massachusetts, and a few other States. They all give the prescription to the druggist. Some time ago a judge of a court of Berlin, Germany, gave a similar decision. The text of the decision from the judge of the Supreme Court of one of our States is as follows:

"The question before the court seems to be very simple, indeed. A patient applies to a physician and receives from him certain advice, for which he tenders a fee. The physician hands a piece of paper to the patient, purporting to be a written order for certain goods called drugs, which order is filled by a merchant or apothecary. The payment of the fee and the delivery of the goods or drugs terminates the verbal contract, and the druggist keeps the prescription as an evidence that the contract has been fulfilled, as far as he is concerned. The druggist can, if he so please, on his own responsibility, renew the drugs, for he is but a merchant, and has a perfect right to sell drugs to anyone and in any shape. He need not keep the prescription, nor is he bound to give a copy, but, should error occur, he has no protection in case of suit."—*Meyer Brothers Druggist.*

Iodide, Proto, oz	$ 35	$ 40
Bin., oz	25	30
Oxide, Red, lb	1 15	1 20
Pill (Blue Mass), lb	70	75
MILK SUGAR, powdered, lb	30	35
MORPHINE, Acetate, oz	1 55	1 60
Muriate, oz	1 55	1 60
Sulphate, oz	1 55	1 60
PEPSIN, Saccharated, oz	35	40
PHENACETINE, oz	35	38
PILOCARPINE, Muriate, grain	35	38
PIPERIN, oz	1 00	1 10
PHOSPHORUS, lb	90	1 10
POTASSA, Caustic, white, lb	60	65
POTASSIUM, Acetate, lb	35	40
Bicarbonate, lb	15	17
Bichromate, lb	14	15
Bitrat (Cream Tart.), lb	29	30
Bromide, lb	65	70
Carbonate, lb	12	13
Chlorate, Eng., lb	18	20
Powdered, lb	20	22
Citrate, lb	70	75
Cyanide, lb	40	50
Hypophosphites, oz	10	12
Iodide, lb	4 00	4 10
Nitrate, gran, lb	8	10
Permanganate, lb	40	45
Prussiate, Red, lb	50	55
Yellow, lb	32	35
And Sod. Tartrate, lb	25	30
Sulphuret, lb	25	30
PROPLYLAMINE, oz	35	46
QUININE, Sulph, bulk	32	35
Ozs., oz	36	40
QUINIDINE, Sulphate, ozs., oz	16	20
SALICIN, lb	3 75	4 00
SANTONIN, oz	20	22
SILVER, Nitrate, cryst, oz	90	1 00
Fused, oz	1 00	1 10
SODIUM, Acetate, lb	30	35
Bicarbonate, kgs., lb	2 75	3 00
Bromide, lb	65	70
Carbonate, lb	3	6
Hypophosphite, oz	10	12
Hyposulphite, lb	3	6
Iodide, oz	$ 40	$ 43
Salicylate, lb	1 75	1 80
Sulphate, lb	2	5
Sulphite, lb	8	10
SOMNAL, oz	85	00
SPIRIT NITRE, lb	35	65
STRONTIUM, Nitrate, lb	18	20
STRYCHNINE, crystals, oz	80	85
SULFONAL, oz	40	42
SULPHUR, Flowers of, lb	2½	4
Pure precipitated, lb	13	20
TARTAR EMETIC, lb	50	55
THYMOL (Thymic acid), oz	55	60
VERATRINE, oz	2 00	2 10
ZINC, Acetate, lb	70	75
Carbonate lb	25	30
Chloride, granular, oz	13	15
Iodide, oz	60	65
Oxide, lb	13	60
Sulphate, lb	9	11
Valerianate, oz	25	30
ESSENTIAL OILS.		
OIL, Almond, bitter, oz	75	80
Sweet, lb	50	60
Amber, crude, lb	40	45
Rec't, lb	60	65
Anise, lb	3 00	3 25
Bay, oz	50	60
Bergamot, lb	3 75	4 00
Cade, lb	90	1 00
Cajuput, lb	1 60	1 70
Capsicum, oz	60	65
Caraway, lb	2 75	3 00
Cassia, lb	1 75	1 80
Cedar	55	85
Cinnamon, Ceylon, oz	2 75	3 00
Citronelle, lb	80	85
Clove, lb	1 20	1 30
Copaiba, lb	1 75	2 00
Croton, lb	1 50	1 75
Cubeb, lb	2 50	3 00
Cumin, lb	5 50	6 00
Erigeron, oz	20	25
Eucalyptus, lb	1 50	1 75
Fennel, lb	1 60	1 75
Geranium, oz	$1 75	$1 80
Rose, lb	3 20	3 50
Juniper berries (English), lb	4 50	5 00
Wood, lb	70	75
Lavender, Chiris. Fleur, lb	3 00	3 50
Garden, lb	1 50	1 75
Lemon, lb	1 75	1 80
Lemongrass, lb	1 50	1 60
Mustard, Essential, oz	60	65
Neroli, oz	4 25	4 50
Orange, lb	2 75	3 00
Sweet, lb	2 75	3 00
Origanum, lb	65	70
Patchouli, oz	80	85
Pennyroyal, lb	2 50	2 75
Peppermint, lb	3 60	3 75
Pimento, lb	2 60	2 75
Rhodium, oz	80	85
Rose, oz	7 50	11 00
Rosemary, lb	70	75
Rue, oz	25	30
Sandalwood, lb	5 50	7 50
Sassafras, lb	75	80
Savin, lb	1 60	1 75
Spearmint, lb	3 75	4 00
Spruce, lb	65	70
Tansy, lb	4 25	4 50
Thyme, white, lb	1 80	1 90
Wintergreen, lb	2 75	3 00
Wormseed, lb	3 50	3 75
Wormwood, lb	4 25	4 50
FIXED OILS.		
CASTOR, lb	9	11
COD LIVER, N.F., gal	1 50	1 75
Norwegian, gal	2 75	3 00
COTTONSEED, gal	1 10	1 20
LARD, gal	90	1 00
LINSEED, boiled, gal	62	65
Raw, gal	60	62
NEATSFOOT, gal	1 20	1 30
OLIVE, gal	1 20	1 25
Salad, gal	2 50	2 60
PALM, lb	12	13
SPERM, gal	1 35	1 40
TURPENTINE, gal	60	65

The Standard Brands.
MILLIONS OF EACH BRAND Sold Annually.
'Cable Extra' 'El Padre' 'Mungo' and 'Madre e'Hijo'
S. DAVIS & SONS MONTREAL, P.Q.

"DERBY PLUG," 5 and 10 cts., "THE SMOKERS' IDEAL," "DERBY," "ATHLETE" CIGARETTES, ARE THE BEST.

D. RITCHIE & CO., - - Montreal.

Drug Reports.

Canada.

Business on the whole for the past month has been satisfactory, and there is a hopeful feeling amongst business men generally. Indications point to a good fall and winter trade.

Nearly all the changes this month have an upward tendency.

Cream of tartar has advanced, and higher prices are looked for.

A syndicate, speculating on the shortage in the grape crop, has purchased all available argols, and, consequently, prices will remain high for a time at least.

Tartaric acid has also advanced.

Camphor has again advanced, and is now held at 80 to 85 cents.

Glycerine is higher.

Oil cassia has advanced fifty per cent.

Oil anise also higher.

Absorbent cotton is higher on account of poor quality of raw material.

Opium is unsettled. An effort is being made by speculators to advance the price.

Cod-liver oil, still slowly advancing.

Jamaica ginger is scarce and high, both in London and New York.

Quinine is stiffening in price.

Those goods which have a lower tendency in price are: Cape aloes, American oil peppermint, gum ammoniacum, cloves, cubebs.

Linseed oil is somewhat lower.

Spirits turpentine, holders are storing for higher prices.

England.

London, Sept. 28, 1895.

There are distinct indications of improved trade, and the revival is being well sustained. The extraordinary heat experienced for this time of the year has facilitated the rise in tartaric and citric acids. Camphor, as predicted in my last advice, has had another advance, and quinine is fractionally dearer. Oil of cassia is much dearer, and all Sicilian oils are firm, with upward tendency. Contradictory reports respecting opium do not assist the sales, but it is impossible to expect an advance if the crop is as large as it has been stated. Cod-liver oil is on the up-grade.

Change your ads often if you expect to make much "change" out of them.

Be punctual. Make your hours of duty fixed and definite, as near as you can, and then live up to them. If you do this, your customers know when to find you.

Koenig's antiseptic salt, largely sold in Germany as a preservative for beer, consists (*Phar. Centralh.*) of 15 per cent. of acid ammonium fluoride, and 85 per cent. of hydrofluosilicic acid.

For softening and removing corns, phosphorus, dissolved in three hundred parts of olive oil, is said to be one of the most satisfactory applications.

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VII. TORONTO, NOVEMBER, 1895. No. 11

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

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New advertisements or changes to be addressed

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20 Bay St., TORONTO, ONT.

EUROPEAN AGENCIES:

ENGLAND: Aldermary House, 60 Watling Street, London, E. C.
FRANCE: 5 Rue de la Bourse, Paris.

CONTENTS.

Progress in Price-cutting
To Numerous Correspondents.
Pharmaceutical Examinations.
A Dominion Pharmaceutical Association.
Free Optical Course.
Wholesalers' Grievances.
A Druggist the first Publisher.
Students in Pharmacy.
More Price-cutting.
TRADE NOTES
Montreal Notes.
Prince Edward Island Notes.
Manitoba Notes.
Provincial Druggists.
Wholesale Drug and Patent Medicine Association.
Death of James Douglas.
Pharmacy in England.
Pleasant Flavored Solutions of Ichthyol.
Pharmacy in Italy.
The Cut-Rate Problem in France.
Handling Customers.
Cinchona.
Does Advertising Pay?
The Evolution of Pharmacy.
A New Container of Acids.
The Treatment of Customers.
Neatness in a Pharmacy.
Pharmacy Law in New Zealand.
French Pharmacy and Grocers.
Governmental Scrutiny.
EDITORIALS.
An Endorsement.
The Relation of Chemistry to Civilization.
The Progress of Chemistry.
Phenacetin Smuggling.
Deadening Routine.
Business and Scientific Education.
Phenol Sulphoricine.
How Artificial Camphor is Made.
Adulteration of Vanilla with Poisonous Substances.
A Glaring Nuisance, and How to Abate it.
Some Notes about Glass.
FORMULARY.
PHOTOGRAPHIC NOTES.
Masticatories.
Emulsion of Creosote with Milk for Rectal Injection.
Sterilizing Vegetable Oils.
The Candle Nut.
Mr. Gladstone's Message.
Improved Elixir Aromatic.
BUSINESS NOTICES.
BOOKS AND MAGAZINES.
DRUG REPORTS.

Progress in Price-Cutting.

The rapidity with which the evil of price-cutting has spread throughout the western portion of Ontario has startled the drug trade, both wholesale and retail, and steps to stem the tide of destruction are now being taken. The retailer who has subjected himself to it has already learned that his own action is his worst enemy, and the wholesaler fears possible conjunctions for buying purposes, which will jeopardize his own trade. It is now felt that some united action must be taken to stop, if possible, a system which has worked such havoc in the drug trade in the neighboring Republic, and which, if persisted in here, would speedily wipe out of existence the majority of our retail drug stores. Those who have recently realized what the practice means are the ones who are most active in seeking to bring about associate and concerted action, while those who have not yet been meddled with are, as usual, tardy in manifesting an interest which would strengthen, and is needed to strengthen, the hands of their confrères. If for no other reason than the hope of prospective safety, every druggist should lend a hand in this matter. Don't build yourself up with the false hope that your customers will stand by you; merely recollect that life is made up of business bargaining; that every dollar you receive is only given you for a bargain equivalent, and that your customer will readily relinquish it to your opponent if he is known to give more for it. Your neighboring druggist is more anxious to see you get good living prices than is the best customer you have got, so to him it is your duty to turn, and with him your duty to join, when prices are at stake.

Don't be misled into the belief that nothing can come of any attempt to maintain prices. It certainly can't come if you and others are unwilling and won't help. Recollect that even a united determination on the part of druggists themselves will at once abate 90 per cent. of the evil, and that this is a step at once possible and reasonable. This being accomplished, the other 10 per cent. can then be attended to with deliberation and care.

What, in our opinion, is wanted first is association and definite organization, supported essentially by most liberal contributions for defensive purposes. Don't falter about the last, as it is better for each to put up twenty-five dollars, or more if needed, for fighting purposes, than to give away that amount monthly in the losing game of price-cutting. When organization and funds are at disposal select an active executive and submit yourselves to their orders. The power they have will be determined exactly by your obedience to orders. For instance, should they desire to induce any proprietary medicine manufacturer to take steps to keep his remedy out of cut-rate stores, and the inducement should take the form of an order to every druggist throughout the province to absolutely refuse the sale of a single bottle until satisfactory results were attained, your compliance with the order, or your failure to comply, would determine the extent of the power conferred on your executive body. One thing is certain, that if it were possible to get every druggist in the province to yield such obedience, as in such a case would be needed, and in cases of similar import, the difficulty would very speedily terminate, as the fear of such influence being exercised in any direction decided upon by the executive would stimulate an activity in many quarters for self-preservation not now dreamed of. Whatever plan, if any, you may have, at least throw in your influence and unite for associate organization, and then steadfastly support the plan of operation decided upon for the general protection of the trade. You have rights; defend them.

The thread of silk spun by the common silkworm is only the fifteen hundredth part of an inch in thickness.

To Numerous Correspondents.

We have received during the last month a number of personal letters, "not for publication," laying before us the grievances under which many of the writers are suffering from the business methods mentioned elsewhere. We cannot possibly undertake to answer individually all these communications, and those who are anxious to know what is to be done we would refer to our columns.

Many of those who now write were, some time ago, perfectly indifferent to the appeals for organization, but,now that the effects of the prevailing "epidemic" are being felt, they are crying aloud, "Save us." We can only say, you must first put forth some effort to save yourselves. Do your share ; induce your neighbor to do his. THE CANADIAN DRUGGIST will continue to give its assistance, and we trus to see a fruitful outcome.

Pharmaceutical Examinations.

The Board of Examiners of the Pharmaceutical Association of the Province of Quebec for major and minor candidates held the semi-annual examination in Laval University, Quebec, on Tuesday and Wednesday, when thirteen major and twenty-one minor candidates presented themselves, and of these three major and eight minor passed, and are named in order of merit, namely: As licentiates of pharmacy—Osborne Thomas Pinck, Alexandre Lemieux, Edward Senecal. As certified clerks—P. Emile Chevalier, A. C. Roy, D. S. Baxter, R. J. Taylor, F. C. Lachevretoire, J. Ritchie, E. O. Gagnon, Jos. A. Labranche.

The examiners were Messrs. R. W. Williams, Three Rivers; A. E. DuBerger, Waterloo ; S. Lachance, W. H. Chapman, J. R. Parkin, Montreal.

A Dominion Pharmaceutical Association.

A number of the speakers at the preliminary meeting of druggists, held Nov. 4th, and which is briefly reported elsewhere, strongly recommended the formation of a Dominion Pharmaceutical Association in the near future. Some, indeed, suggested its immediate formation ; others advised the provincial organization first, and after that an association embracing the druggists of all Canada. Our readers know well our feeling in this respect. To be recognized as a body with weight, with influence, we must be an organized body. It is only in this way that we can have strength, that we can bring influences to bear, and that we can hold our position in spite of all comers. We trust soon to see the realization of such a scheme, and heartily wish the Quebec association the greatest success in their initiatory steps taken in this direction.

Free Optical Course.

The well-known co-operation of THE CANADIAN DRUGGIST in everything that conduces to the advancement and prosperity of the pharmacists of Canada is universally recognized, and its suggestions in regard to matters pharmaceutical always receive from its readers careful attention.

We have, on several occasions, called our readers' attention to the desirability, where practicable, of adding to their stock a line of optical goods, which, if properly handled, prove a source of revenue both directly and indirectly. At the same time, we have pointed out the fact that no success can be had without a thorough, practical knowledge of the science of optics, such as may be obtained by a course of instruction at the hands of some competent teacher.

In order to still further prove our interest in the trade, we have decided to make an offer of which we feel sure many will gladly avail themselves.

We offer a course of instruction for one *druggist* in any town where there is not already a druggist handling optical goods. The expense of the course of tuition, which lasts two weeks, will be paid wholly by THE CANADIAN DRUGGIST

The instruction will be given by Mr. L. Laurence, at his rooms, in the office of the Montreal Optical Co., Toronto.

The first class will be commenced January 6th, 1896 ; the second, January 20th ; the third, February 17th ; and, in order to accommodate those who live in Eastern Canada, a class commencing February 3rd will be held in Montreal. The only stipulation exacted is: The party desiring instruction must be a druggist (a principal) doing business in a place in which no other druggist is handling this line, and be a subscriber to THE CANADIAN DRUGGIST. In order not to crowd the classes which will be going on at the time, not more than six CANADIAN DRUGGIST students can be accommodated at any one of the classes. Any further information may be obtained by writing THE CANADIAN DRUGGIST, Toronto, Canada.

Wholesalers' Grievances.

(Contributed.)

The peculiar condition of trade generated by the cut-rate system has inflicted upon wholesale druggists forms of hardship which, though not in all cases intentional, are none the less severe.

In order to retain a profit as large as possible while selling at cut prices, the retail druggists combine to buy in sufficient quantities from the manufacturer to secure the jobber's discount, and thus cut out the wholesaler. In other words, each druggist adopts, in intent, the same principle which induces his own customers to go past him and buy from outsiders. His object is the attainment of the lowest figure, and the same may be said of his customer. Both forget or ignore the fact that any one else is dependent upon them for trade, and yet both are inclined to blame their proper source of supply for not being able to do better for them. Under such circumstances it ill becomes the druggist to cavil at his customer, who merely takes a leaf out of his own book. To make matters worse, the cash trade goes where the cut price prevails, and the credit where it is, frequently, not wanted. Not merely does such a condition of things apply to manufactured proprietary articles, but the very limited trade now done by wholesale druggists in drug sundries shows that the retailer patronizes very largely the general sundry dealer, who will as readily supply his dry goods opponent as he will him. Retail druggists who are anxious to confine the drug trade to its legitimate channel should at least be as consistent as they require their wholesaler to be. It is manifestly unfair to the wholesaler to tell him that if he will supply a dry goods firm with stock you will withdraw your patronage, and then, when he expresses acquiescence, to turn about and buy from a source parallel with the one you have condemned

The wholesale trade is anxious to keep in touch with its proper customers, but wants such a condition reciprocal. Pulling apart can never mend matters, but the closest union attainable may do much to rectify wrongs which sadly need righting.

A Druggist the First Publisher.

The first Japanese newspaper appeared only twenty-five years ago. It was published monthly, by a druggist, as an advertising medium. Now there are over four hundred journals in the realm of the Mikado.

Students in Pharmacy.

The students of the Montreal College of Pharmacy have elected the following office bearers: President, L. A. Genest ; vice-president, E. P. Lemieux ; secretary-treasurer, M. J. Gadbois ; councillors, E. A. Desrosiers, N. Barolet, H. E. Archambault, L. Fortin, A. Ecrement ; standard-bearer, L. L. Bernard ; marshal, J. A. Quenneville.

More Price Cutting.

The epidemic has now broken out in St. Catharines, Ont., and bids fair to demoralize the trade there. The latest additions to the list of "cut" remedies are those of the Ontario Chemists' Association, the 25 cent preparations, according to an advertisement in the St. Catharines *Evening Star*, being sold at ten cents.

A. Y. SCOTT. D. MacMILLAN.

Scott & MacMillan

Manufacturers of

TRADE MARK

Perfumes
Perfumed Waters
and
Toilet Sundries.

TELEPHONE 2052.

14-16 MINCING LANE, TORONTO, ONT.

Perfumes

PERSIAN LILAC *SWISS CLOVER* *SPANISH BOUQUET*
MO-KO-KA *JASMIN* *CARNATION*
WHITE ROSE *WHITE HELIOTROPE* *JOCKEY CLUB*
CRAB APPLE BLOSSOM

Perfumed Waters

LILAC • VIOLET • LAVENDER, ETC.

Sundries

ALMOND CREAM,
PANSY VIOLET TOILET POWDER,
PANSY VIOLET JELLY CREAM,
PANSY VIOLET TOOTH POWDER.

STILL TO THE FRONT

Souder's Chewing Gums

ARE ACKNOWLEDGED TO BE THE

BEST GUMS IN THE MARKET

Reliable, handsomely put up, and affording a good profit.

Tolu Sugar Plums,
Sweet Wheat,
After Dinner,
Celery Pepsin,
Mountain Teaberry Tolu,
Kissimee, Pineapple, Blood Orange,
Banana, Royal Tablet Tolu, etc.

Send for Price List of Show Case Assortments (only $3.75).

—ALSO—

FAULTLESS CHEMICAL CO.'S (Baltimore, Md.)

PEPSIN CHIPS

(The gum that is round.)

JUST OUT: **BILLINGS, CLAPP & CO.'S**
Slippery Elm Lozenges

For Coughs, Colds, and Hoarseness, in 5lb. glass-front Tins.

SEND US YOUR SAMPLE ORDER.

CANADIAN SPECIALTY CO.

38 Front Street East, - - Toronto.

Hot Water Bottles . . .

Are now articles of prime interest, their use extending year by year. In no other line is there so much variety in quality, so that all parties require to exercise unusual care in making purchases. In mentioning prices we wish to say that no other line gives better value in soft, pliable, durable stock and good finish than

Universal Hot Water Bottles

Two Quart, $8.25. Three Quart, $8.75. Four Quart, $9.25.

The Same Applies to

Universal Fountain Syringes

ORDINARY		COMBINATION	
Two Quart,	$ 8.50	Two Quart,	$ 15.00
Three Quart,	10.00	Three Quart,	16.00
Four Quart,	11.50	Four Quart,	17.00

"Highland" Chest Protectors

These are exceptionally good value.

No. 1	Protector, double, chamois lined, small	$ 7.50	doz.
No. 2	" " " " medium	10.00	"
No. 3	" " " " large	12.00	"
No. 4	Vest, wool-lined, circumference 30-33 inch	18.00	"
No. 5	" " " 34-37 inch	18.00	"
No. 6	" chamois-lined, " 30-33 inch	21.00	"
No. 7	" " " 34-37 inch	21.00	"

A sample of any of the above mentioned lines can be obtained by mail, and stock can be ordered subsequently.

The following are a few latest arrivals.

Betanaphthol-Bismuth
Ammoniæ
Phenacetine-Buyer ozs.
Sulphonal-Buyer ozs.
" " lbs.

Cubeb Cigarettes
"Shell" Brand Castile Soap
Acme Pellets, 5c. pkgs.
Gibson's Candies
Estes' Patent T. W. Boxes

Frog in Your Throat

ELLIOT & CO.

5 FRONT STREET EAST

TORONTO

We Manufacture

Envelopes
Writing Tablets
School Blanks
Memo Books, etc., etc.,

And are Headquarters for
ALL KINDS of **STATIONERS' SUPPLIES**

DO YOU WANT THESE GOODS?
Then write us for prices.

THE W. J. GAGE CO., LTD.,
52-54 Front St. West. - - TORONTO.

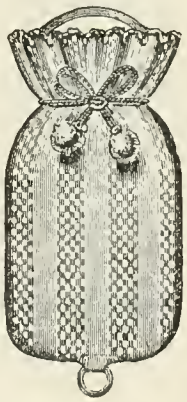
J. STEVENS & SON,
78 LONG LANE, - LONDON, E.C., ENGLAND

Red Cross English Dressings,
Druggists' Specialties,
Glass and Earthenware,
Hospital Supplies and Instruments.

1895 List and Discounts now ready.

CANADIAN AGENCY:
145 Wellington Street West,
TORONTO

We have a New Line of
Hot Water Bottles
which we are offering to the trade at
Very Low Figures



We can give you a two-quart hot water bottle to retail at 75 cents each.

Prices and quantity discount on application.

ALPHA RUBBER CO., LTD.
MONTREAL, CANADA.

DICK'S UNIVERSAL MEDICINES FOR HORSES AND CATTLE

They always give entire satisfaction, and there are no medicines in the market that can compare with them.
Thrifty farmers, stockowners and carters all over the country are, by actual results, realizing that they cannot afford to be without a supply of
Dick's Blood Purifier. Price 50c.
Dick's Blister, for Curbs, Spavins, Swellings, etc. Price 50c.
Dick's Liniment for Cuts, Sprains, Bruises, etc. Price 25c.
Dick's Ointment. Price 25c.
Circulars and advertising cards furnished.

DICK & CO., P.O.Box 482, MONTREAL

Trade Mark T & K Registered

TYPKE & KING
CHEMICAL MANUFACTURERS
7 Jeffrey's Square,
St. Mary Axe,
LONDON, ENG

Hypophosphites a Specialty.

Acids Phosphoric and all other Pure Acids.
Ammonia Nitrate, Oxalate, Valerianate and all Ammonia Salts.
Antimony Crocus, Sulphide, Golden Sulphuret, and all Antimonial Preparations.
Essences from Fruit, etc., for Confectionery
Hypophosphites Baryta, Iron, Lime, Magnesia, Manganese, Potash, and Soda.

All **Chemicals** for **Analytical, Photographic,** and **Pyrotechnical** purposes.

The Best Brushes

Hair, Tooth, Nail, Shaving, Bath, Cloth, Infants'

MANUFACTURED BY

A. Dupont & Co.
PARIS

Agents for Canada—
J. PALMER & SON,
1747 Notre Dame Street, MONTREAL

THE
Lyman Bros. Co.
(Limited)
TORONTO, ONT.

Offer the following
.. SACHETS ..
by well-known makers:

COLGATE'S, in 4 oz. Bottles:
Caprice,
Cashmere Bouquet,
Heliotrope,
Italian Violet,
Jockey Club,
White Rose,
West End,
Ylang Ylang.

LUNDBORG'S, in 4 oz. Bottles:
Edenia,
Heliotrope,
Helioviolet,
Pansy,
Violet,
White Rose.

PINAUD'S, in 5 oz. Bottles:
Acacia de France,
Aurora Tulip,
French Pansy,
Heliotrope,
Jockey Club,
Iris,
Lilas de France,
Lily of the Valley,
Paquita Lily,
Peau de Espagne,
Santal,
Stephanotis,
Violet,
White Rose,
Wood Violet,
Ylang Ylang.

BALDWIN'S, in 5 oz. Bottles:
Dew Drops,
English Violets,
Peachblow,
Stephanotis,
Queen Bess,
Wild Flowers,
Wild Plum.

WOODWORTH'S BLUE LILIES in 4 oz. Bottles.

HARRISON'S, in 8 oz. Bottles:
Frangipani,
Heliotrope,
Jockey Club,
Violet,
White Rose.

Trade Notes.

M. A. Taschereau, druggist, Montreal, Que., has made an assignment.

C. G. Millar's drug store, Coldwater, Ont., has been destroyed by fire.

Thomas Boulter's drug store at Lanark, Ont., was destroyed by fire, November 4th.

The drug store of W. C. Goode, Goderich, Ont., was destroyed by fire October 19th.

Nasmyth & Davis, druggists, Brantford, Ont., are closing up their business in that city.

Walter Parke has retired from the wholesale drug firm of Archdale Wilson & Co., of Hamilton, Ont.

Proctor, corner Queen and Bathurst streets, Toronto, Ont., is moving his drug business to Drayton, Ont.

W. J. Nichol is now proprietor of the drug store at 170 King street east, Toronto, formerly W. J. Nichol & Co.

George J. Little, 1298 Queen street West, Toronto, Ont., has sold his drug business to Mr. Allen, formerly with J. R. Lee.

S. W. Hobart has purchased the drug stock of the late firm of George S. Hobart & Sons, Kingston, Ont., at 38 cents on the dollar.

Mr. Henry Miles will retire from the wholesale drug firm of Lyman, Sons & Co., Montreal, December 31st, when the term of partnership expires. Mr. Miles has been with the firm twenty-five years, and has been one of its most prominent and active members. Mr. Miles, we understand, does not contemplate removing from Montreal.

Montreal Notes.

Mr. W. H. Griffith, of Sherbrooke, has quite recovered from his recent illness, and looks better than ever. His many friends will be pleased to hear of his restoration to health. He was in town last week.

Mr. John Nault, who has recently been on a tour through England and France with a professional friend, has returned to Montreal, and looks much benefited by his escape, for a time, from the cares and vexations of life behind the drug counter.

About half of the pharmacists of Montreal have put down their names as members of the Universal Trade Association of Detroit. The idea seems to be that if the majority of pharmacists of the United States and Canada will join, the influence of such a large body of retail men (hitherto without trade organization) must be felt.

Mr. MacMillan has opened a pharmacy at the corner of St. Catharine and Philip's square, and Mr. Barnabé, recently in partnership with Mr. Roy, has opened out on his own account at the corner of Plessis and Ontario.

Mr. Bourque, lately with Dr. Palardy, is also opening a pharmacy on the corner of St. Antoine and Inspector.

In addition to these, a doctor is opening a new pharmacy at St. Henri, a suburb of Montreal, and another pharmacy, with quite a large amount of capital invested in it, is to be opened on St. Catharine street, east of St. Denis, by a young French Canadian, who intends to make French specialties a leading feature.

Many men who ought to know say that if the opening of new drug stores continues, it will not be worth any man's while to devote himself to the business.

When so many pharmacies are in the market one would suppose it bad business policy to establish new ones. Speaking with a long experience, there is only one spot in Montreal where a new drug store could possibly make even a respectable living for its proprietor, and that spot is being negotiated for by a well-known pharmacist.

On dit that Mr. Henry Miles is about to retire from the partnership of Messrs. Lyman, Sons & Co., of which he has been junior member for a number of years, and in which position he has earned the respect of every druggist in Montreal.

A new drug journal, making four in the Dominion, has just been issued in Montreal under the name *Le pharmacien Canadien*. It is to be, it is presumed, the organ of the French-Canadian druggists. It is certainly enterprising, and very well got up for a first number. The British Canadians in the Province of Quebec will certainly wish it success.

Prince Edward Island Notes.

Mr. C. D. Rankin has put in a very handsome plate and stained glass front to his drug store, adding most materially to its appearance, and making it one of the finest exteriors in the maritime provinces.

Mr. Percy D. MacRae, lately in the employ of Mr. L. MacLaren, of Digby, is now on the staff of Watson's drug store, Charlottetown.

It is reported that one of the partners of Messrs. Manson & MacNeill, of Summerside, purposes retiring from the business.

Manitoba Notes.

The drug trade of Manitoba and the West may now be said to be in a healthy and prosperous condition. The successful harvesting and storing of this year's crop has again awakened confidence in trade matters generally, and the drug trade, along with others, is receiving, in a measure, its share of the increased activity.

The druggist, along with the general storekeeper, has had to fight that almost inevitable trade barrier, that credit system, which has been too prevalent during the last few years, and, but for the rich and bountiful harvest accorded the farmers of Manitoba and the West the past season, the result of another year's business might have been disastrous.

The change has come, however, and is being welcomed. The experience gained in past years will be of paramount benefit in guarding the future.

The prospects for a good fall and winter trade were never better, and the druggists generally are anticipating a much larger business than in any previous year in consequence.

Several new drug stores are being opened up at different points in the province, which would indicate more confidence in future trade. However, it is to be hoped that the rushing into business upon the spur of the moment, when everything is in a flourishing condition, will not be repeated with the same results as in former years.

The druggists throughout the West have, more or less, during the last few years, been in the habit of laying in large stocks of supplies in the early fall, anticipating a much increased trade during the winter, but it is questionable if, even with the good prospects for the season of 1895 and 1896, this plan will be carried out again by many of those who have found that, with a wholesale house close at hand, it pays to lay in only such stock as is perishable and difficult to handle during the extreme cold weather.

The fancy goods trade, one important factor in the country drug trade, will, no doubt, show an improvement over that of former years; the increased circulation of money throughout the country will, no doubt, augment the confidence already displayed in the coming Christmas trade.

Collections are reported brisk, but somewhat slower than at first anticipated, on account of low prices, the farmers having concluded to hold as large a portion of their crop as possible, in view of an advance. On the whole, prospects for the season of 1895 and 1896 are most encouraging.

The council for the Pharmaceutical Association of Manitoba met at the Clarendon Hotel on the fourth day of October last, for the purpose of considering the report of examiners for the examination held on that date. The following members of the council were present: J. F. Howard, B. M. Canniff, W. R. Bartlett, E. D. Martin, C. Flexon, J. C. Gordon, and Dr. W. A. B. Hutton. Only three students appeared before the examiners at this sitting, and all were successful. Mr. Wallace Colcleugh, of Winnipeg, and Mr. S. G. Keyes, of Midway, passed successfully the minor examination, and Mr. A. E. Kelly, of Winnipeg, the major. Examiners—Dr. W. A. B. Hutton, B. M. Canniff, C. Flexon.

A. R Leonard, druggist, Stonewall, was in Winnipeg on business.

J. A. Wright, druggist, Boissevain, has returned from a pleasure trip to the East.

Mr. C. S. Touchburne is opening a drug store at Alexander, Man.

W. Ledingham has opened a drug store at Russell, Man. He was formerly with Mr. B. M. Canniff, of Portage la Prairie.

J. H. Rose, chemist and druggist, Winnipeg, has assigned.

Mr. E. T. Howard has purchased the business of Mr. W. H. G. Gibbs, corner Euclid and Main streets, Winnipeg. Mr. Howard has for some time been clerking for his brother, Mr. J. F. Howard, and is well and favorably known in Winnipeg. His friends wish him every success.

Dr. J. J. Poole is opening a drug store at Baldur, Manitoba, in connection with his practice.

Dr. R. L. Morrison, of the late firm of Morrison & Gordon, Carman, was in Winnipeg last week.

Awe-Inspiring !

We have just received a card advertising a United States proprietary remedy called "Frasier's Fountain of Life," and which says, "It produces a breathless, awe-inspiring equilibrium of every atom of the human system." Here is a chance for a public analyst.

Mailing Tubes for Liquids.

A correspondent writes us for the address of "a manufacturer of mailing tubes for liquids." Here is an opportunity for some one who is not advertising this line.

Provincial Druggists.

An informal meeting of the druggists of Ontario was held in the College of Pharmacy building, Toronto, Nov. 4th. There was a good representation of druggists from the different sections of the province. The meeting was called for the purpose of forming a Provincial Pharmaceutical Association for Ontario, and to appoint a deputation to confer with the newly formed Wholesale Druggists' Association, in relation to trade interests. S. Tapscott, of Brantford, was elected chairman *pro tem.*, and J. T. Pepper, of Woodstock, secretary. Letters of apology were read from several members of the council, who found it impossible to be present, all, however, expressing themselves in hearty sympathy with the movement. Expressions of opinion were given by many of those present, all agreeing unanimously as to the advisability of the proposed association and their intention of working energetically in its behalf. A number of valuable suggestions were made by several of the speakers in reference to evils existing in the trade, and a number of remedies for these evils were proposed. These were referred to a committee appointed to take the initiative in the formation of the Provincial Association. This committee was also delegated to wait on the members of the Wholesale Druggists' Association, which would meet the day following, Nov. 5th, and also to select an executive. The following are the members of the committee: J. H. Mackenzie, G. E. Gibbard, Toronto; W. A. Howell, Hamilton; W. T. Strong, London; H. Watters, Ottawa; G. B. Smith, Guelph; J. McKee, Peterborough; W. A. Karn, Woodstock; A. Turner, Orangeville; W. W. Greenwood, St. Catharines; J. F. Roberts, Parkhill; J. H. Dickey, Trenton.

A resolution was passed looking to the amalgamation with the previously formed Provincial Association, and the following provisional officers were appointed; President, S. Tapscott, Brantford; secretary, J. T Pepper, Woodstock; treasurer, R. Ferrat, Galt.

We must congratulate the druggists on the tone and *personnel* of the meeting. Everything that was said was moderate and just, and the unanimous desire seems to be that an earnest and persistent effort should be made to unite all trade interests, viz., the wholesale and retail druggists and patent medicine proprietors. We understand a thorough canvass of the druggists of the province will be made to induce all to become members, and we trust that any such effort will meet with the success which it certainly deserves.

Wholesale Drug and Patent Medicine Association.

A meeting was held at the Board of Trade rooms in this city, on Tuesday, November 5th, for the purpose of organizing an association embracing the wholesale druggists and proprietary medicine dealers of Canada. There was a full representation of the leading firms of Ontario and Quebec, the firms represented being, Kerry, Watson & Co., Evans & Sons, Lyman, Sons & Co., Lyman, Knox & Co., of Montreal; Lyman Brothers & Co., Elliott & Co., Lyman, Knox & Co., T. Milburn & Co., Northrop & Lyman Co., Toronto; J. Winer & Co., Archdale Wilson & Co., Hamilton; London Drug Co., J. A. Kennedy & Co., London. An association was formed under the title of the Wholesale Drug and Patent Medicine Association, and the following officers were appointed: President, Mr. J. Henderson, Toronto; first vice-president, Mr. D. Watson, Montreal; second vice-president, Mr. G. Rutherford, Hamilton; secretary-treasurer, Mr. C. McD. Hay, Toronto. The following were appointed a Board of Control: Messrs. R. W. Elliott, Knox, T. Milburn, Howe, J. A. Kennedy.

Matters pertaining to the welfare of the trade were discussed at some length. A deputation, appointed by the meeting of retail druggists held the previous day, waited on the association, and presented a memorial dealing with the existing state of the drug trade, and suggesting remedies for grievances which exist. A mutual understanding was arrived at, and a feeling of cordial co-operation in all trade interests was displayed, which augurs well for the interests of all parties connected in any way with the trade, either as wholesaler or retailer.

Death of James Douglas.

The many friends of Mr. James Douglas, formerly manager of the London Drug Co., will regret to hear of his death, which took place at London, Ont., October 21st.

Mr. Douglas was the third son of the late Mr. Robert Douglas, of Perth, and commenced his drug career by apprenticeship with Alexander Allan and Dr. Kellock, of Perth, some thirty years ago. He afterwards entered the wholesale drug house of Lymans, Clare & Co., Montreal, and subsequently engaged with Kerry Bros. & Crathern (now Kerry, Watson & Co.). About twelve years ago he assumed management of the London branch of the latter firm, and was afterwards admitted as partner. Close application to business and severe attacks of the "grippe" so undermined his health as to render it necessary to give up business, and about four years ago he removed to Sandwich, Ont., where his brother-in-law, Mr. J. E. D'Avignon, of Windsor, then lived. Deceased was a gentleman of sterling probity, and universally liked by all who knew him.

Mr. Douglas was a member of the volunteer force for some years, serving in the Victoria Rifles before, during, and after the Fenian raid of 1866. He was also a Mason of long standing, having belonged to Mount Royal, No. 32 Q.R., Montreal, Tuscan, of London, and to the Lodge of Perfection and Chapter Rose Croix of the Scottish Rite, London. He was the third oldest (masonically) Past Master of Mount Royal Lodge.

The remains were brought to Perth, where they were interred in Elmwood cemetery under the direction of True Briton Masonic Lodge No. 14, of which the father of deceased was a Past Master. We tender our sincere sympathy to his widow and friends. Amongst his surviving brothers and sisters are Major J. W. Douglas, of Shelburne; W. J. Douglas, Pembroke; Robert Douglas, Minneapolis; Mrs. DeHertel, and Hon. Mrs. John Haggart, Perth.

Chionia, the hepatic stimulant, is attracting much attention in the medical profession. Its physiological action is that of a gentle stimulant to the liver and portal circulation, encouraging normal action of that organ. It is not considered a cathartic specifically.

ANTHION.—This substance, mentioned in this department last month, and concerning which we have had several queries, is now said to be merely potassium persulphate masquerading in this fanciful name.

Tooth Brushes

WE have a very large stock, and in great variety. Values are much better than we have ever before been able to offer. Our friends are invited to examine samples in the hands of our travellers, and compare prices before placing orders.

Millot's Chrysanthemum

All customers who have handled this splendid perfume will be pleased to know that we are again in receipt of a large supply. We have never before handled a perfume which created such a sensation.

MILLOT'S CHRISTMAS PERFUMES

Finest quality goods, in fancy boxes, suitable for holiday trade. Try them ; they are great values.

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Hamilton, Ontario.

The Montreal Optical Co.

Head Office and Factory:
1685 Notre Dame St.
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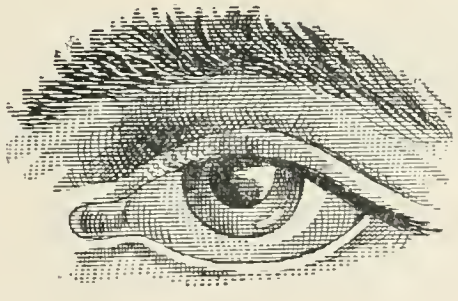

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Applications for admission to this class must be sent in early.

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Baby's Own Soap

Is cut for advertising purposes, but you make a great mistake in not keeping it, as it carries trade with it.

Ox Gall Stain Soap

An attractive package, tin-foil and carton, ½ doz. in box. A most wonderful preparation for removing stains of paint and grease from carpets, clothes, etc., and restoring their natural color.

The Albert Toilet Soap Co. MAKERS AND SELLERS. Montreal.

FIX THIS FACT IN YOUR MEMORY:

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STRENGTHENS.

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AT RIGHT PRICES

OUR LINE OF
ENEMAS, TUBING, FOUNTAINS, ATOMIZERS, is very complete and prices right. Buyers can effect great saving by placing orders with us.

SURE-SELLING SPECIALTIES:
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¼ gross Box at $1 per Box.
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In 5c. Packages, ¼ gross Box, $1 per Box.

Full lines of Sundries.
Mail orders promptly executed.

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132 BAY ST., TORONTO

Pharmacy in England.

The Breweries Cocoa Wine as a Favorite Public Analysts and Pharmacists Chloroform and Ether in Bond Nitroglycerine Tablets Soap and its Profits.

(From Our Own Correspondent.)

The Breweries, as the annual Brewers' Exhibition is called, generally has some fresh objects of interest to pharmacists. This year it must be admitted that the usual standard is hardly maintained, owing to the absence of some of the largest machinery manufacturers. The exhibition is always popular and successful, but much of its success is due to the composite character of the exhibits. Besides the inevitable brewers' mash tuns, materials and apparatus, the soda fountain and mineral water manufacturers occupy considerable space, and those that supply these, such as cordial, soluble essence, manufacturers, and essential oil importers, etc., have attractive exhibits. Amongst soluble essences the kola nut seems growing in favor. "Biaris" is the name given to a compound effervescing salt supplied to mineral water makers, who dispense it in their own bottles. "Jerezcona," a curious name, evidently compounded from the Latin for sherry, with a dash of cinchona, is a very agreeable tonic, containing a standardized amount of the hydrobromic extract of cinchona bark, prepared by Fletcher's patent. Armour, of pork-packing fame, are making a big bid for public favor, and their extract of meat in liquid and solid form is freely dispensed at their attractive stall. They have a lard substitute which they call "vegetole," of which I shall have more to say in another issue. Filters, bottle makers, printers, and others are represented in the huge galleries that run round the Royal Agricultural Hall. It may be of interest to add that essential oil importers are all jubilant at higher prices, which are steadily growing, whilst essence makers look glum and groan over the ruinous prices of best Jamaica ginger, etc.

Coca wine must be booming. I have just heard that Messrs. Armbrecht, Nelson & Co. have given orders for several millions of handbills and booklets respecting the virtues of their coca wine. The connection of coca wine and homœopathy is certainly not altogether apparent, and yet Messrs. Ambrecht-Nelson used to be known in the West end of London as homœopathic chemists. But for several years past they have made a specialty of this wine, and advertised largely, both to the medical profession, the trade, and the general public. Perhaps to Vin. Mariani belongs the honor of starting coca wine in favor, but there can be little doubt that the consumption is now something enormous, as every wholesale druggist, wine dealer, and chemist has his own particular brand, as well as the well-advertised ones.

Public analysts are always clashing with the government laboratory over milk standards, etc. With their worrying the unsuspecting milkman we are not concerned; but of late years, in their anxiety to display their energies, they have laid it down as a dictum that anything procured from a druggist's shop must be a drug. It is inconvenient enough to be bound by the Pharmacopœia as to the exact nature and quality of an article like beeswax that may be required to refurbish the family furniture. But some analysts are not satisfied with that, and labor to procure convictions in cases where sweet spirit of nitre is asked for, and the British Pharmacopœia spirit of nitrous ether is, probably, *not* supplied. Licorice is another article that they have tried to brand as a drug, but without success. The difficulty that pharmacists have to face is to compete with the cutting stores, and this would be made an impossibility if a distinction were to be drawn merely because the druggist is a qualified man and the storesman may be a grocer. Beeswax is in the delightful position of being regarded as a drug in some parts of the country, whilst in others it is not considered worthy of the title. It is usually in those parts where chemists have been summoned for selling the commercial variety, containing a varying proportion of mineral or paraffin wax, that it is regarded as a drug. Prosecutions against grocers for the same article have been uniformly unsuccessful. This is so manifestly unfair that the matter cannot rest where it is. Curiously enough, these remarks are supplemented in an emphatic manner by an editorial article on exactly the same subject in the *Chemist and Druggist* published this day.

The export trade of wholesale druggists, essence and perfume manufacturers, has distinctly improved since the wise policy of our Board of Inland Revenue sanctioned the rebate of duty on all the spirit used. Previous to that all tinctures, medicinal spirits, etc., had to be shipped from Germany to English customers abroad, and only a few firms possessed the privilege of making essences and perfumes in bond, down at the docks, under the supervision of the customs. This privilege is still accorded, but already it is reported that one of the firms has given it up in favor of accepting the Inland Revenue plan of exporting in bond from your own warehouse. We are still handicapped, however, with regard to chloroform, ether, collodion, etc., as no reasonable plan has been worked out by which English manufacturers can export these in bond when made from pure alcoholic. Of course, the Inland Revenue is mortally afraid that the products of methylated spirit would be shipped, and so drawback be paid on stuff that had never paid duty. But our big Scotch chloroform makers, who annually sell large quantities made from pure spirit for exportation abroad, ought to take a leaf out of the perfume-makers' book, and obtain leave to manufacture in bond. As it is, there is a decided opinion amongst many medical men in favor of chloroform, etc., prepared from pure alcohol, and no allowance can at present be made for this article when shipped abroad.

Nitroglycerine tablets came in for unmerited censure at a recent inquest. The evidence showed that the deceased had been accustomed to take quite a number daily, as he suffered from heart disease. Whereupon the medical man stated that it was a most foolish practice, as the drug was very powerful, and if taken in any quantity might prove dangerous to life. An intelligent juror suggested that merely carrying about such an article as nitroglycerine was very risky, and was evidently under the impression that nitroglycerine is a solid and people in the habit of cutting off chunks and chewing it! Mr. Martindale has promptly refuted these statements, and shown, on Dr. Sidney Ringer's personal experience, that large quantities of nitroglycerine may be absorbed without serious symptoms. Of course, these tablets only contain $\frac{1}{100}$th of a grain, made up with a chocolate basis.

The recent slump in South African mines is probably responsible for the latest Vinolia Soap advertisement. It is headed, "Golden Advice," and runs: "There are mines and mines, there are soaps and soaps; all mines are not gold mines, all soaps are not Vinolia." At the same time soap seems to be a gold mine, as Pears have paid 10 per cent. dividend on their ordinary shares, and still carry a good amount to the reserve fund. Is the world becoming cleaner, that in spite of the most active competition all the leading soapmakers are doing better business than ever before?

Pleasant Flavored Solutions of Ichthyol.

One of the objections to the use of ichthyol in therapeutics is its odor, which, to many persons, is intolerable. For this reason the following, which, it is claimed, have an agreeable odor and flavor, will be welcomed by apothecaries as well as physicians. They are from the *Therapeutische Monatshefte:*

FOR INTERNAL USE.

Peppermint water	80 gm.
Simple syrup	20 gm.
Ichthyol	5/8 gm.

Mix.

Essence of peppermint dissolved in alcohol absolute may be used in place of the water, 2 drops of the oil in 15 drops of alcohol being sufficient to mask 1 to 1.5 drams of ichthyol.

FOR EXTERNAL USE.

Essential oil of citronella	25 parts.
Oil of eucalyptus	25 parts.
Ichthyol	950 parts.

Essential oil of *pinus sylvestris* may be used instead of those given, but a much larger quantity will be required—as much as half the volume of the ichthyol being necessary.—*National Druggist.*

RESACETIN.—Synonym for oxyphenylacetic acid.

Pharmacy in Italy.

The three principal foreign pharmacies in Naples, says a writer on the conditions of pharmacy in Italy in the *Rundschau*, are Kernot's Pharmacy, the Farmacia Anglo-Americana, and the Farmacia Internacionale. Mr. Kernot's is situated just opposite the Royal Palace, and claims to be the oldest English pharmacy in the whole of Italy. It was founded by the father of the present proprietor at the beginning of this century, and has a very high reputation, not only among visitors, but also among the Neapolitans themselves, for its high-class dispensing, and especially for the purity of its English quinine, the latter article, by the way, always finding a ready sale at high prices. Kernot's is a very elegantly-equipped pharmacy, and is only equalled in this respect by the Pharmacie Internacionale in the Via Callabritto, which is fitted in such a lavish and artistic style that it is supposed to be the finest of its kind in the whole of Europe. The proprietor of the Farmacia Internacionale is M. Luigi d'Emilio, the head of the dispensing department being a Danish gentleman. The Farmacia Anglo-Americana, although it cannot compare with the two first-named in respect of beauty and appearance, has, nevertheless, a very excellent reputation. This pharmacy occupies three shops, attached to which are extensive laboratories. Its proprietor is a German, M. Durst, who has practised pharmacy not only in his native country and in Italy, but also in France and in England. He possesses both the German and Italian diplomas. M. Durst speaks fluently no fewer than six languages. Many of the pharmacies on the Italian Riviera and in North Italian towns, as well as in Rome, have one or more English assistants, but although Britishers and Americans only form the chief portion of the foreign customers of these pharmacists, the German and Austrian contingent of chemists' assistants, nevertheless, becomes more numerous year by year. In many places where only one foreign assistant is kept, a German possessing a knowledge of French and English, or even a superficial knowledge of English pharmacy, is often preferred to an Englishman, especially as the latter is generally not a linguist. In all Italian cities there are large colonies of German or German-Swiss, mostly proprietors of hotels or of factories and shops; consequently, a knowledge of the German language is much more valuable to the foreigner in Italy than a knowledge of French. The last-named language especially is of very little use in Southern Italy, although in the North it is heard almost daily—in fact, in a place such as Naples an Englishman with a knowledge of French has only a very slight advantage over an Englishman who does not know French. The conditions for qualified assistants are, as a rule, from 200 to 250 lire (8*l.* to 10 *l.*) per month, outdoors. This is for the first season, but if the assistant returns to the same place in successive seasons his salary is almost always raised, and his travelling expenses are paid both ways. As a rule the engagement lasts from November 1 until the end of April, with a stipulation that it will be prolonged for one or two months in case the season should be late. The hours are very long, viz., from 8 a.m. to 10 p.m., and from 8 a.m. to 7 p.m. on alternate days, with one and a half hour's break for each of the two meals, and every alternate Sunday free. Between Christmas and Easter there is hardly any spare time in the shop. Although these conditions seem rather hard, it is, nevertheless, a valuable experience for a man to pass one or two seasons in Italy, apart from the pleasure of wintering in the sunny South.—*Chemist and Druggist.*

The Cut Rate Problem in France.

A proposal for regulating the sale of specialties, presented by the syndicate of pharmacists of the Loire and the Haute Loire, was read at a recent meeting of the General Association of French Pharmacists, says the Paris correspondent of the *Chemist and Druggist.* The proposal deals, firstly, with specialties intended for export, and, secondly, with those destined for sale in France and Algeria. It is proposed that manufacturers should form themselves into a "Syndicate of Manufacturers of Pharmaceutical Products." With regard to export, the suggestion is that each member of the syndicate should adopt a special capsule, label, or distinctive mark for all their goods destined for foreign trade. The sale of specialties bearing such indication would be prohibited in France, and the arrangement would be that any wholesale druggist or other dealer selling such goods in France would render them liable to confiscation. The proposed arrangement for the sale of specialties in France is as follows: The members of the Syndicate des Fabricants would sell all specialties at the prices marked for the public, less a discount of 5 per cent. to wholesale druggists and commission agents.

A ticket, representing the actual amount of the discount, would be inclosed with each article; this would be removed on receiving a supply of goods and handed to the Society of Pharmacy of each department, who would collect the amount and distribute the proceeds. Pharmacists desiring to participate in this arrangement would be required to sign an agreement as follows: "The undersigned, pharmacist, residing Rue——, at ——, desiring to associate myself with the efforts of the Syndicate of Manufacturers, which has decided to put a stop to the depreciation their specialties suffer through the action of certain pharmacists as regards the prices fixed for sale to the public, spontaneously engage myself of my free will to sell all specialties and other goods similar to specialties at the exact marked prices. This without any discount or manœuvre that could diminish the price of sale to the public. I agree to accept the decision of the committee of the Syndicate of Manufacturers of Pharmaceutical Products as regards all disputes concerning the proper carrying out of the present engagement, or, in case of judicial proceedings, the finding of the Civil Tribunal of the Seine." The provincial societies would be charged with the supervision and carrying out of this contract.

Any pharmacist against whom sufficient proof could be brought that he has not complied therewith would have his tickets refused payment. Specialists are invited to pay in the amount of tickets not presented to the pension fund of the General Association of French Pharmacists. A proposal of this kind in a more or less modified form has been under the consideration of the manufacturers of specialties for some time past—*American Druggist.*

Handling Customers.

Every merchant should see that his clerks are properly instructed as to how to handle customers. When a new clerk begins to work for you, see that the first thing that is told him is the manner in which to deal with the people. See that the clerk is instructed to please the customer at all hazards. Do anything that is possible in the way of showing goods, answering questions, taking pains in waiting on cranks as well as quick and easy buyers. Instruct your clerks so that they will understand that every customer is to be treated fairly and as liberally as possible. See that no misrepresentations are made, and try to have your clerks impress the people with the idea that your store is really at their service and is endeavoring to serve them faithfully. When a customer puts dependence in you or your employees, see that they are never disappointed. If they leave anything to your judgment, see that your employees give them the very best that is to be had. It is well to let the clerk and the customer both feel that confidence is placed in the clerk by the firm. This strengthens the clerk in his efforts to serve you, and makes the purchaser feel that some one is waiting on him who knows his business and in whose word dependence may be placed. —*Keystone.*

Fruit juices and beverages may be preserved by the addition of hydrogen dioxide solution in the proportion of one in ten thousand.

Surgical plasters and dressings should not be exposed to the action of sunlight as they are seriously injured by such treatment.

To Render Creosote Tasteless.—Rub it up with magnesia in the proportion of one part in ten, powder the resulting hardened substance and suspend in syrup.

3 GOOD SELLERS

VELROSE

SHAVING CREAM
SHAVING STICK
BARBER'S BAR

PAY YOU WELL. PLEASE YOUR CUSTOMERS

ATTRACTIVE COUNTER ARTICLES

Order Sample ½ dozen from your wholesale house to come with next order.
We supply Samples for free distribution with first orders.

THOS. LEEMING & CO.

MONTREAL

FRONT AND BACK VIEW

AMERICAN SILVER TRUSS

The Silver Truss

IS A NEW INVENTION,
NEW IN PRINCIPLE,
NEW IN DESIGN,
NEW IN APPLICATION,
and the MOST PERFECT KNOWN.

The great success of this Truss in holding with comfort all kinds of hernia, whether adults, youths, or infants, all over Canada, the United States, and Europe, is phenomenal. They have been adopted by leading hospitals, surgeons, and rupture specialists of the United States, and by Westminster and Guy's Hospitals, London, Eng. No greater recommendation could be accorded any appliance than its adoption by the physicians and surgeons comprising the staffs of these hospitals, which rank among the largest and best in the world.

MANUFACTURED BY

THE SMITH MANUF'G CO., GALT, ONT.

LITTLE'S PATENT FLUID

NON-POISONOUS

SHEEP DIP AND CATTLE WASH.

For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

☞ 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at **$1.00**. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.

TRADE C H G S MARK

Little's Soluble Phenyle

DEODORISER & ANTISEPTIC

NEW DISINFECTANT.

FOR UNIVERSAL USE

CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

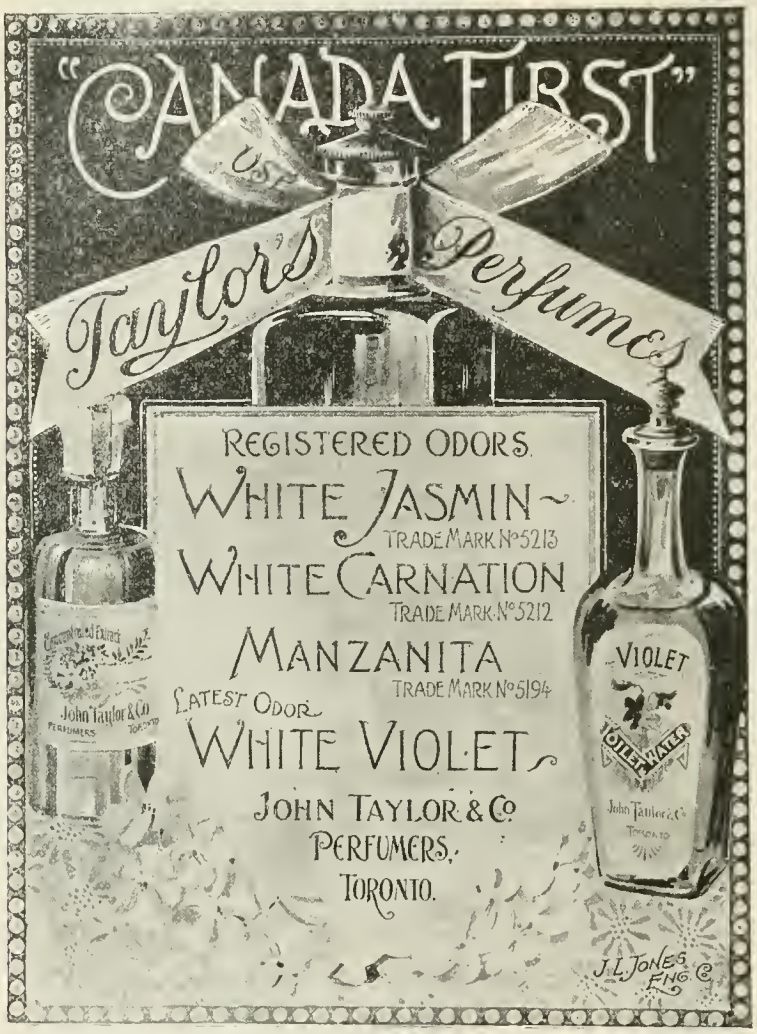
Sold by all Druggists in 25c. and 50c. Bottles, and $1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

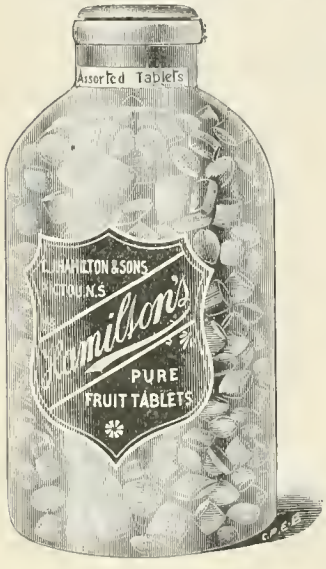
ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton, and London, Ont., and Winnipeg, Man.



Fine Fruit Tablets



ENGLISH FORMULA TABLETS

Have been our specialty and have been a success. Packed in elegant Flint Glass Jars, large glass stopper, the finest package in the Dominion. Also in round jars, similar to English, but made two inches shorter to fit the ordinary shelf. A large variety. List of flavors and prices on application.

G. J. HAMILTON & SONS,

PICTOU, N.S.

Rapid . . . . Sellers

LUXTEN'S INSECT POWDER

London Drug Co.'s

Sticky Fly Paper

Lime Juice
(½ Pts., Pts., and Qts.)

Moth Balls
in 10-cent boxes.

Storey's Headache Powders
10-cent packages.

Gem Rings

Mixed Spices

Stafford's White Paste
Cleaner and Stronger than Mucilage

THE

LONDON DRUG CO.,

LONDON, ONT.

ALL KINDS OF . . .

CRUDE DRUGS.

- - SPECIALTIES OF - -

FREDK. GRAF, DRUG MERCHANT,

65 FENCHURCH ST., LONDON, E.C.

Established 1886. Prices and samples on application.

PER DOZ.

No. 1. Nozzle and Shield, with Outlet Tubing . . $30
No. 2. " " Complete 2-qt. Fountain, 48

DISCOUNT TO TRADE ON APPLICATION.

BEST SYRINGE ON THE MARKET. SOLD BY ALL JOBBERS.

LYMAN, KNOX & CO.
Montreal and Toronto
Agents for Canada.

Cinchona.

Thirteen species of cinchona are known to yield barks which are met with in commerce; but of these only four are mentioned in the British Pharmacopœia. The most important species are now largely cultivated in India, Ceylon, and Java. The species named are *C. Calisaya*, discovered by Weddell, in 1847 (referred to in *Ann. des Sciences Nat.*, 1846), although its bark had been an article of commerce for some years; *C. Condaminea*; *C. Succirubra* (Howard's Nueva Quinologia), largely cultivated in British India, although a native of Ecuador, known in commerce as red bark; and *C. Lancifolia*, a native of New Granada, cultivated in India, and imported in large quantities for the manufacture of quinine, commonly known as Columbian bark.

The history of this article of commerce is exceedingly interesting, but the earlier records are lost in obscurity, and it is by no means certain that the aborigines of South America had any knowledge of its medicinal properties; certain it is that to this day the Peruvians themselves make no use of the bark, nor is it included in the methods of their itinerant doctors.

The earliest record of the bark is said to be when it was first introduced into Europe, 1640. It is, however, said that, in the year 1739, a Jesuit missionary, residing in Loxa, was cured of fever by the administration of the bark.

Whether this is correct or not, it is agreed that the medicinal property of the bark was accidentally discovered. It was long used for the purposes of dyeing, and exported from the country for that purpose by the Spaniards. An ancient tradition, given by Condamine ("Mem. de l'Académie Royale des Sciences, année 1738"), says that the Americans owe the discovery of the remedy to some wild beasts which were remarked to resort to the bark for the cure of some disease. But another account, with a greater appearance of reality, is that some cinchona trees, being thrown down by the winds into a pool of water, lay there until the water became so bitter that every one refused to drink it.

However, one of the neighboring inhabitants, being seized with a violent paroxysm of fever, and finding no other water to quench his thirst, was forced to drink this, by which he was almost immediately cured of his complaint. He afterwards related the circumstance to others, and prevailed upon some of his friends, who were ill of fever, to make use of the same remedy, with whom it proved equally successful.

The use of this medicine, however, was very little known till about the year 1638, when, a signal cure having been performed by it on the Spanish Viceroy's lady, the Countess del Cinchon, at Lima, it came into general repute, and hence obtained the name of the countess' powder or cinchona.

On the recovery of the lady, she distributed a large quantity of the bark to the Jesuits, in whose hands it acquired still greater reputation, and by them it was first introduced into Europe.

It is said that Louis the Fifteenth, when Dauphin, was the first in Europe who experienced its efficacy.

It subsequently obtained the name of "crown bark" from having been used by the royal family of Spain.

The cinchonas are evergreen, and all natives of South America, in an area which includes portions of Venezuela, New Granada, Ecuador, Peru, and Bolivia. They are confined to the mountain districts, none growing in the plains, the average altitude being given as 8,000 feet above sea level. The tree attains considerable height, sending off large branches covered with rough brown bark. The *C. Officinalis* has been found with a trunk as large as a man's body; but since the demand for the bark has increased, there are only young and smaller trees to be found. As the climate of these regions varies considerably, it affects the growth much more than the variety of the soil. That which suits it best is a red clay, or rocky ground on the banks of mountain streams.

The season proper for collecting the bark is from September to November, as these are the only months in the year in which there is little or no rain in these districts, for it is useless to cut bark when it is wet, as it then loses its color, turns black, and is worthless. Should it, however, become wet accidentally, it must be at once dried to be of any value at all. The work is, nevertheless, carried on throughout the year at intervals.

The collection and preparing of the cinchona barks involve great hardships, and mean very arduous labor. The men employed are generally Indians and half-breeds, engaged by companies or individual merchants. These men are known as "cascarilleros," from the Spanish "cascara" bark. They are governed by a major domo, who directs all operations, receives and examines the bark direct from the workmen, and who then stores it for future use.

The whole district is examined, and the forests explored in all directions, so that the greatest gain may be obtained; and at a given point, so as to form a convenient centre, a camp is formed, and the workmen are sent singly, or in small parties, to search for cinchona trees, and to collect the bark. In order to do this, the tree must be felled, being cut a little above the root, the bark having been removed previously, it being thicker at this point, therefore of more value. Nothing is lost; even the ground is removed round the trunk, so that every portion may be obtained. After the tree has been felled, the periderm is removed by striking it with a mallet, thus exposing the inner bark, which is then cleaned by a brush.

The bark is then divided into sections, and these are removed from the trunk by a knife for the convenience of transport; the pieces are generally made about eighteen inches long and five inches wide. The bark from the branches is removed in the same way, with the exception of leaving its exterior coat or periderm. The process of drying varies according to the place from which it was taken—branches or trunk. The thinnest pieces, which are intended for quilled bark, need only to be dried by action of the sun's rays, which causes them to take the round form, but the thicker parts from the trunk and large branches make the flat cinchona. This must be subjected to a degree of pressure, without which it would dry of various unsuitable shapes or become round, which would not be desired. After exposing the bark to the sun, the pieces are placed upon each other in crossed squares, and on the top of the whole is placed a heavy weight; this is continued until the drying process is completed.

Should this not be done, as is sometimes the case, the bark is more or less curled, or otherwise misshapen. It sometimes happens that a degree of moisture is purposely left, in order that the weight might be increased. After this process has been completed, the workmen carry their load to the camp, where it is examined and stored by the major domo.

The preparing the bark for exportation is a business of itself. The bark is selected, and, if found necessary, subjected to a fresh process of desiccation, formed into bundles, sewn up with canvas, and transported to the depôts in the towns, where they are put into a new envelope, usually a fresh hide, which on drying makes of the whole a hard pack, and on arriving in Europe they are known as serons, weighing usually about 160 lbs.

The reckless way in which cinchona bark has been collected from the districts of South America has resulted in the utter destruction of many of the forests in that country, so much so that the attention of scientists has been directed to the possibility of cultivating the tree in other countries. The idea was advanced in the years 1792 and 1837 to transplant young trees to Algeria, but the cultivation was not a success. After many attempts in various places by a succession of well-known botanists, cinchona plantations have been established by the Indian Government in the valleys of the Himalaya, British Sikkim, and in Ceylon, and by the Dutch in Java. This cultivation proved a success, and regular shipments from Java to the Dutch markets are increasing. Also large imports from the Indian plantations are being received in the London market; these are also yearly increasing, so that we are no longer dependent upon South America. That from Ceylon is richer in quinine than the South American, and as much as 3,000 tons has been raised there, entered in our trade returns as "Peruvian Bark." The yearly imports to this country average 130,000 cwts.—*G.D., in British and Colonial Druggist.*

Diffused daylight acts as a preservative for tincture of iodine; hence this tincture should not be kept in the dark.

Does Advertising Pay?

J. C. Ayer began life as a drug clerk and advertising his Cherry Pectoral in a small way, but when he died he left a fortune estimated at $15,000,000. C. I. Hood began "that tired feeling" in a small way in 1870, and is now rated as a millionaire. A. B. Scott, of Scott & Bowne, was working at a moderate salary twenty years ago; to-day his firm is spending $1,000,000 a year for advertising. Brent Good, proprietor of Carter's Little Liver Pills, started on a cash capital of $8.40, and now cannot spend the money he is making. Judicious advertising has made it possible for Seabury & Johnson to spend annually $50,000 on popularizing their products, W. T. Hanson Company $500,000 on Pink Pills for Pale People and Wells, Richardson & Co. $600,000 on Paine's Celery Compound. Dr. A. L. Helmbold was at one time a retail druggist in Philadelphia. He finally began the manufacture of his Buchu Compound, and put his entire surplus capital of $2,000 into a contract for one month's advertising, and in a short time, comparatively, was enjoying a clear income of $150,000 per year, besides spending as high as $250,000 annually in advertising. A druggist who did not advertise was known in his town as "Old Pill Box." One time an invalid lady visiting in the village was taken sick, and desired a certain back-number patent medicine, which, after visiting the other drug stores, she was unable to obtain. Finally, as a last resort, she called on "Old Pill Box," and after considerable search he found it in the cellar covered with dust and dirt, and made the sale, which pleased him so much that he secured a notice in his local paper, and paid for it in trade. This sold more of it, and he finally became converted to the idea of advertising, and to-day is a partner in a prosperous jobbing house.—*Omaha Druggist.*

The Evolution of Pharmacy.

Conditions affecting business generally have altered greatly within recent years, and methods have altered to meet them. More than usual have been the changes affecting the affairs of the pharmacist. Efforts have been made in one way and another to meet the change in conditions, the direction determined by the bent, the ability, or the circumstances of each individual. The great mistake has been made in many instances of adding everything saleable which promised profit, regardless of its appropriateness or connection with the calling. This is a step backward; at best it can only intensify the difficulty and prolong the agony. The only hope is in the other direction. There is a law of commerce at work as an element in the process, which can never be disregarded.

Large numbers have been attracted to the calling of the pharmacist, because of its presumed great profits. The fallacy of this supposition is now in process of being proved, and the consequence will be that the purely commercial element will find its way, with this part of the business, into its proper place elsewhere. The great centres of population are feeling the pressure most, and in these places we may expect to see the first signs of the coming condition. The time is hardly ripe, as yet, for the advent of strictly legitimate pharmacy, yet the tendency is unmistakably and decidedly in this direction, and, in spite of the large number and loud character of the expressions to the contrary, the prospects for ultimate actual good results were never brighter.

The great increase in the facilities for pharmaceutical education and the correspondingly greater interest in acquiring it can have but one significance. The elevation of the standards required in the colleges and by the boards are steps in the same direction. The ultra-pessimistic views we find so frequently and forcibly expressed are usually in the nature of wails from those who are pinched by the pressure.

A considerable change, though it be in the way of an improvement, cannot be accomplished without working a hardship to a relative few, who are, perhaps, an actual many. We should remember that an omelet cannot be prepared without the breaking of eggs. The disturbance which makes the condition of pharmacy to-day is the agitation consequent on a new forward movement in the process of the evolution of pharmacy from its present chrysalis condition of the indeterminate hybrid which now bears its name into its true status of a science and an art. The process of evolution is always and inevitably a slow one, and consists, in this instance, as is commonly the case, in a series of steps rather than a steady, continuous movement.

We want to pose as a prophet here, and say that there is a parting of the ways for pharmacy in the not very distant future.

In the adjustment of things now prevalent and beginning to be felt, the dissociation of the alien elements now united under the name of pharmacy must sooner or later ensue.

When we consider those elements, how unlike they are, and how essentially incompatible, the wonder only is that mere custom and convenience could so long have held them together against the force of modern tendencies.

Pharmacy is properly a scientific-technical art, requiring of its followers a high order of qualifications, both natural and acquired. The proper discharge of its duties necessitates a scientific education, general and special; a skill acquired through training and experience, and a spirit dominated by a sense of duty toward humanity at large.

The true professional pharmacist aims to perform his part toward his fellow-men in a way which yields most efficient results, free from the bias of possible profit. Right, and the advancement of his art, enter into consideration, even if his duties are expected to be rewarded by remuneration. His, in a word, is the professional spirit.

The rarity of the pharmacist here described does not preclude the possibility of the actual entity; there are enough of these, differing from this portrayal simply in degree.

On the other hand, the commercial druggist, the man "who is in the business for the money he can make out of it," as we often hear it expressed, in no wise differs from his fellow-merchant who sells calico, cakes, or cabbage. His business conduct is governed by the same principles which have dominated commercial matters everywhere since the earliest beginnings of barter. These principles were recognized by the old Romans, who placed over their market-place the inscription "*Caveat emptor.*"

He buys and sells with the object of obtaining the greatest possible profit—all other considerations are subordinated to this end. His idea of the greatest good of the greatest number is embodied in the amount of increase in his own emoluments. He seeks to sell all he can, regardless of the value or harmfulness of the substances sold to the purchaser. This is the spirit of the merchant merely. Surely we can consistently claim that two elements so essentially unlike cannot continue united in one calling in opposition to the modern tendency toward specialization.

A certain amount of the commercial element is inseparable from every calling. The services of all professional men are for sale, and are offered for the highest terms, within certain limitations; so with the pharmacist. His hope lies in the direction of the limitation of his calling to its legitimate field and his proper qualification therefor, with the extension of which it is very largely capable. The commercial men will follow their wares into their proper field elsewhere.

Let it be understood this will occur gradually, and with modifications according to the exigencies of the case and the allowance for occasion, but that it will occur do not doubt.—*Southern Journal of Pharmacy.*

A New Container for Acids, Etc.

Many attempts have been made to render paper and wood containers acid proof, but without success. A French industrial paper states that this can now be done by impregnating the paper or wood with a mixture of equal parts of gutta-percha and paraffin. These are first melted together, then the hot fluid is flowed over the surface of the container, on both the outer and inner sides, any excess of fluid being returned to the melting pot. Any unprotected spots which remain are afterward covered by means of a lump of the congealed mixture and a hot soldering iron.—*Jour. Ch. Ind.*

Have You Stocked

Honey and Horehound Cough Drops?

They are a Light-Colored, Nice-tasting Confection, made from a First-class Medicinal Formula.

They are handled exclusively by us, and will be sold only to the Drug Trade.

Lawson & Jones

LONDON, CAN.

Have You

Somerville's Pepsin Gum?

It is the Gum the others are selling.

It is admitted to be the best Pepsin Gum made in Canada.

Our Carving Set Premium Packages are having a great sale.

C. R. SOMERVILLE

LONDON, ONT.

Harris H. Fudger

TORONTO.

The above cut shows the latest mechanical wonder, The Spider and the Fly. Retails for 10c.

Holiday Goods

Mechanical Toys and Dolls
Household Games and Sports
Fancy Brush Sets
School and College Toilet Rolls
Silver Plated Novelties

HARRIS H. FUDGER

50 YONGE ST., TORONTO.

CHRISTMAS COMES BUT ONCE A YEAR

Therefore people are more willing to buy a better class of goods as presents for their friends

WE CAN RECOMMEND TO THOSE OF OUR DRUGGISTS WHO HAVE NOT DONE SO ALREADY TO LAY IN A STOCK OF

FRENCH, CAVE & CO.'S

SWEET CHIMES PERFUME

(The perfume of the elite)

Criterion Size, retailing at 15 cents — Half-cork top, retailing at 25 cents
Other sizes, from 35c. to $2 50 per bottle — In bulk, 8 oz. g.s. bottles, 50c. per oz.

SWEET CHIMES SACHET POWDER In 10-cent phials, in envelopes and quarter-pound bottles

SWEET CHIMES TOILET POWDER AND FACE POWDER

French, Cave & Co.'s

CONCENTRATED ESSENCES

For making Toilet Waters

Full directions, and 12 lithographed labels with each 4-oz. bottle. We have in stock
CONCENTRATED ESSENCES OF FLORIDA WATER, VERBENA, WHITE ROSE, AND OIL OF COLOGNE
One Pint Essence Makes over a Gallon of Toilet Water

F., C. & CO.'S SMELLING SALTS In oval nickel screw bottles, retailing at 10 cents. *Send for price list*

FREE with first $7.00 order

HEIGHTH 9¾ IN.
3½ IN. SQUARE
CONTENTS 1¼ LBS.

WE WOULD ALSO REMIND OUR CUSTOMERS THAT THERE IS ONLY ONE GENUINE

It is entirely different from the many Bromo preparations with which the market is flooded, and far superior to all.

FRENCH'S
"Celery and Caffeine Bromide"
TRADE MARK

THOSE WHO HAVE TRIED IT CAN SPEAK OF ITS VALUE

Three sizes, retailing at 25c., 50c., and 75c.

Beware of imitations - *Send for special offer*

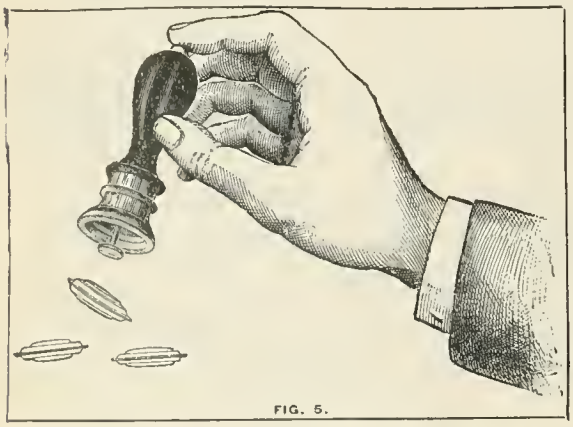
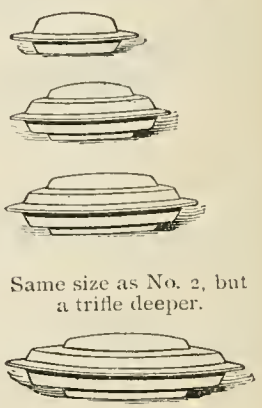


FIG. 5.

Chapireau's

CACHETENSES AND CACHETS . .



These machines and cachets are the best in the market. We have sold a great number of the former, and hundreds of thousands of the latter, from the Atlantic to the Pacific.

Same size as No. 2, but a trifle deeper.

◆ ◆ ◆ ◆ ◆ ◆

SAMPLES AND PRICES ON APPLICATION

CANADIAN SPECIALTY COMPANY

30 Front Street East - - - Toronto, Ont.

DOMINION AGENTS

The Treatment of Customers.

In the close competition of the nineteenth century, it has become necessary for the tradesman to study every detail of his business, as the thorough artist studies each branch of his art.

As the results of careful forethought, we have witty advertisements, strict attention to order and cleanliness, and the judicious selection and attractive display of goods. But sometimes—too often, perhaps—study ends there. The customer is catered for, but his reception and subsequent treatment are left to chance, or to the mood of master or assistant. This is undoubtedly a mistake.

A customer becomes favorably disposed to that place where he is not only well but obligingly served; but disinclined to visit that shop where, though the goods may be of the best, the manners are not. In politeness, as in other things, assistants take their tone from the master, or head man. Where he is courteous and obliging, his helpers become the same. Few things, indeed, are more infectious than the grace of good manners At the same time it must be borne in mind that politeness should be insisted upon by definite orders to that effect, as well as instilled by action.

The first point in the reception of a customer is a pleasant look. This is not so trifling a thing as many may suppose. An agreeable first impression is thus made, which may be deepened by a pleasant tone of voice and an evident desire to give satisfaction. Alacrity of movement is another point to be observed, but *alacrity* as wholly distinct from *bustle*.

Again, there should be a readiness to "take trouble." Customers—ladies especially—are not inclined to revisit a place where they have met with evident unwillingness to take articles from the window, or where the shopman has pressed the sale of goods near at hand to save himself the trouble of fetching a somewhat similar thing from a distant department, whereas a readiness to oblige, and to be of help in the choice of articles, finds its reward in the continuation of custom. There are minor details, such as distinctly spoken thanks, polite handing of change, etc., which are small, but not beneath notice, since it is the littles which make the great whole.

Neatness n a Pharmacy.

The first requisite of style is neatness, not only as to personal appearance, but particularly so in regard to a pharmacy. It would be impossible for the pharmacist to keep abreast of the styles in fittings, window cases, and shop glassware, for change is from year to year written on the face of everything. This is even so with the drug business, although it is rated among the most conservative in the matter of changes.

A new store finished in natural woods, or decorated in the style of to-day, is certainly pleasing, and the drug business offers facilities for artistic effects like no other; yet an old-fashioned store, if neatly kept, carries with it a respectability and a style peculiarly its own.

If there is any neatness at all it is in the front of the store, but too often the back rooms are far from that ideal as regards cleanliness. This is a mistake. Granted that the front store is clean, if there is one spot where there is a laxity, it will be the dumping ground for everything, from an old ointment pot to a collapsed demijohn.

A good rule is to immediately throw in the ash-barrel all cracked glassware and useless things, and empty in the sink all spoiled preparations. Then, and then only, can the druggist say that his whole stock is in order, and of cash value.

It is very important not to have the shelves in the back room too deep. They should be just deep enough to take the bottles with but an inch to spare. If the shelves were four or six inches deeper, this space would either be wasted, or remain a menace to that standard of pharmacy we have just spoken of—order, besides being before long a resting place for stray rags, bottles, and corks.

There are some people who do not have order, will never have order, and do not know what order is. They are not only satisfied to live in disorder, but to relish it; yes, more, they even would compel others to live amid the surroundings which they create. We have all met individuals who leave a track after them of dirt and disorder, like the wake of a ship on smooth waters.

Just at this time, when higher education in pharmacy is receiving such marked attention, it is well for the student to appreciate things other than science, and recognize among the standards of pharmacy cleanliness, system, and order.—*Frank T. Green, in Pacific Druggist.*

Pharmacy Law in New Zealand.

A Pharmacy Act Amendment Bill was recently submitted to the Colonial Parliament, and will come into force, provided it passes, on January 1st, 1896. The bill provides for all existing pharmaceutical chemists and future registered persons to constitute a body corporate under title of the Pharmaceutical Society of New Zealand. The governing body will be a board of ten members, entitled the Pharmacy Board of New Zealand. The present board is to be continued as the first under the Act, and subsequent boards to be elected. Provision is made that registered persons, who in the opinion of the majority of the board are unfit to continue registered, may be struck off. The bill renders it unlawful for any person to use any name implying that he is a registered chemist; nor may he keep open shop for the compounding and dispensing of medicines; nor may a registered chemist have more than one shop unless each is under the control of a registered chemist. Certain persons other than chemists may be registered as drug-sellers, provided that their place of business be beyond one mile of that of a registered chemist.—*British and Colonial Druggist.*

French Pharmacy and Grocers.

The Bureau of the Pharmacy Syndicate of the Department of Alger have just prosecuted two grocers before the Correctional Tribunal for selling various medicaments, such as quinine, Epsom salts, and thapsia plasters. The two firms, recognizing their position as untenable according to the laws, applied for release from the prosecution, and propounded the following conditions: (1) Each to pay a fine of 500 francs and all costs of process. (2) A written apology to the syndicate, and an undertaking not to again offend, to be given by both. The Bureau, taking into consideration that it was the "first offence," in both cases agreed to withdraw the prosecutions.

Governmental Scrutiny.

Agitation is going on in Washington looking to governmental scrutiny of drugs, particularly as to the preparation of specifics and of the literary matter that accompanies them to the hands of the consumer. In fact, there is such a governmental scrutiny over the chemistry of drugs and remedies in Germany, and the system has been productive of the best results. The plan to be followed, it is said, will not be complicated, nor severe on the largest of the drug-producing manufacturers. A national commission or board attached to one of the executive departments at Washington, it is suggested, shall be given the authority to make chemical analysis of all "patent" products, and to stamp them with their approval or disapproval. Secret processes and formulæ would of course be protected, of necessity, but a system of indorsement could easily be devised to enable the government to characterize in an official and unmistakable manner the exact value of the commodity. It is proposed to punish the manufacture and sale of remedial agents without the official approval. The hardship of such a system would fall upon the fakirs, the manufacturers of dangerous goods, and the producers of cheap and worthless imitations of staple articles.—*Merck's Report.*

The pores of the skin are so fine that it is estimated there are thousands of them to every square inch of surface.

THE CONDENSATION PRODUCTS OF ISOVALERIC ALDEHYD.—L. Kohn has obtained two products; the one, boiling at 82° under a pressure of 15 m.m., seems identical with that studied by Kekule, Fittig, Beilstein, and others, and probably with the product obtained by Barbier and Bouveault. The second product is an oil of feeble odor, colorless, boiling at 140° under a pressure of 18 m.m. It seems to be a polymer of valerol.—*Chemical News*

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

NOVEMBER 15TH, 1895.

An Endorsement.

For some years we have been urging on the druggists of Canada to band themselves together, both locally and in the wider sphere of provincial and Dominion environments.

We have advised the formation of local and district associations, of an association for each province, and of one grand Dominion association embracing the drug trade throughout Canada. The purposes of these associations we have repeatedly brought before our readers, the main points being the regulation of trade and the welfare of pharmacists generally.

An effort, and a very laudable one, was made a couple of years ago to organize a Provincial Association for the Province of Ontario; this existed about a year, and through the apparent apathy of those for whose benefit it was intended, namely, the retail druggists, it was allowed to die.

In our issue of October we again appealed to our readers and urged on them the necessity for prompt action in order to do something to stem the tide of demoralization which threatens the drug business, by the increasing number of drug and department stores, which threaten to sap the life-blood out of the business by their unbusiness-like methods, and by the determined cutting in prices which prevails in some localities, regardless of the fact that all are losing money by it. This appeal, and the fact that many druggists are now feeling the baneful effects of the "cutting" evil, has acted as a stimulus to the druggists of this province, particularly in the western portion of it—as evidenced by the feeling displayed at the meeting held recently in this city, a short account of which appears elsewhere. The unanimous expression of a determination to do whatever lay in their power to rectify the existing state of affairs augurs well for the success of their proposed work, and, if the same interest and enthusiasm can be maintained and increased, we have no reason to doubt that good results will follow.

It has always been the endeavor of this journal to forward any proposition which we believed to be in the interests of pharmacy, and to condemn that which was injurious, regardless of the opinions of those who, in order to serve their own personal ends, would have had us still further jeopardize those interests. In the days of the last Council of the Ontario College of Pharmacy, we were approached with the proposition that we should pursue a certain line of action in accordance with the views held by a number of those councillors, and that, in case of our so doing, an arrangement might be come to that this journal should be made the organ of the council. We believed that the views propounded were not in the interests of pharmacy, nor of the drug trade in this province, and we declined to be a partner to any such arrangement. We agreed to furnish a journal for the druggists of the province, giving a detailed account of the meetings of the council, and anything in connection with their body, but we declined to be bound to any particular line of action as to what should be expressed in our editorial columns, and would not consent to anything beyond that. Recent events have proved that our decision was the correct one, and the guiding hand of a so-called association for the benefiting of the drug trade, viz., the O.C.A., has shown that more was meant possibly than was expressed in their requests.

ACTING on the article before mentioned ("A Time for Action," CANADIAN DRUGGIST, October, 1895) lists were prepared for signature by the druggists of Ontario uniting themselves together as a provincial association. The majority of these lists, we were enabled, through the courtesy of the wholesale trade of Toronto, Hamilton, and London, to place in the hands of the travelling representatives of all these houses, and the rapidity with which they have been filled, and the interest displayed by the signers, has led us to believe that, after a thorough canvass of the trade throughout the province, it will be found that less than five per cent. of the druggists have refused their signatures, and the formation of a numerically strong association will be the result.

We regret that there are some notable instances of cases where signatures were refused, and where we should have expected the initiative in doing whatever could be done to help the cause along. What do the druggists of Ontario say of the ex-president of the College of Pharmacy, A. B. Petrie, of Guelph, refusing to sign an agreement to become a member of the provincial association whose main object would be the protection of trade interests? What was the answer? Our informant says it was: "I don't care for cutting; the sooner it comes the better; then druggists will learn to put up their own preparations or *sell Ontario Chemists' Association's goods.*" Oh, the selfishness of human nature, that a man would sacrifice the whole drug trade in order to benefit the Ontario Chemists' Association! Another notable instance is that of C. K. McGregor, of Brantford, another member of the late council board. This firm (McGregor & White) instituted the cutting of prices in their city, and not only in the line of patent medicines, but in the sale of ordinary drugs, in prescriptions, and everything handled by the drug trade. Not only was the pioneer in this very undesirable line amongst the druggists of Canada, but they supply a grocer or general storekeeper in Stratford, who is a determined underminer of prices, with patent medicines. There are others who are not as widely known as these who have, and are, acting quite as unadvisedly, and with as serious detriment in their several localities.

THERE are also other influences at work which in time must be dealt with. We firmly believe the large majority of the proprietary medicine manufacturers are in sympathy with the drug trade, and are willing to meet them in determining some way of remedying existent evils, but there are cases in which some of the manufacturers are acting in a way which does not commend itself as being either business-like or likely to lead to any increase of their trade. The firm of S. G. Detchon, of this city, manufacturers of South American Nervine, etc., have been reported as not only selling their goods to a cutting house, McGregor & White, but are making them general agents for the sale of their goods in the city of Brantford. Such short-sighted policy is, on the part of any manufacturer, bound to reap its reward, and such an apparent effort to antagonize the rest of the drug trade for the business of one house of this description is inexplicable. An interview with Mr. Detchon was obtained, and he informed us that the goods had been sold to the firm, but he was unaware, at the time, that they were cutting prices. They would now, however, decline to sell them any more of their goods.

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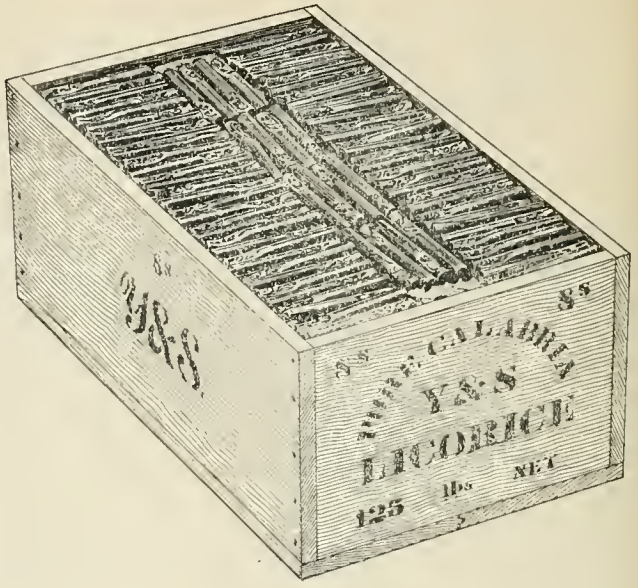

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The Relation of Chemistry to Civilization*

By Claude F. Walker, B.S.

Chemistry is the systematic knowledge of the elements of matter in their relations to each other and to force. The development of chemistry has been an evolution, in which true scientific reasoning, the result of a long course of induction, has been the guiding principle. The art of chemistry has made practical and profitable application of the truths exhibited in the established forms of science. Thus between our progressive science and art and the corresponding development of mankind there has grown up a relation which has a most important bearing upon human welfare.

Mankind is more than a mere aggregation of individuals ; it is an organic unity, a great family, composed of the most diverse races bound together for the common interest by social and political laws, manifesting its power through the home and the state. It is the influence of this science and art on the progressive changes involved in the growth of this structure of humanity that incites our special interest.

Chemistry affects the development of mankind by its effect upon the human body and its physical environment. In procuring the necessities of life it has wrought wonders, turning stones into bread, plants into clothing, clay into palaces. It has transformed the continent and the globe itself. Mineralogy treats of the natural inorganic forms of matter composing the earth. Chemical mineralogy, by revealing the composition and structure of gases, liquids, and solids, has given to man the mastery of the metals, the wealth of precious stones, and the energy evolved from mineral fuels. The increased knowledge of the working in iron and steel alone has revolutionized architecture. The new method of constructing high city buildings is of value from an economic standpoint. The increase in the strength and durability of bridges and the facility of their construction, together with the improvement in steel rails, have promoted the rapid advancement of means of transportation with corresponding effect upon the community at large. The invention of armor-plate and a like improvement in armaments have been the means of hastening the coming of the day when war shall give way to arbitration. We are still in the iron age, but even thinking men proclaim, not without reason, that aluminum is the metal of the future, destined by its peculiar properties and widespread occurrence to hold a much more important place in material civilization than any other metallic substance.

Although, in the popular conception of mineralogy, the chief emphasis is laid upon the metals and their ores, it should be realized that the non-metallic minerals are no less important ; indeed, their annual product often exceeds that of the metals in value.

The science of agriculture came into being only after chemistry revealed the processes involved in the germination of the seed and the growth of the plant. Chemists are able, by an examination of the soil and of previous crops, to determine with gratifying exactness what is necessary in the mechanical and chemical conditions of the soil to enable it to produce the desired quantity and quality of a given product at the least cost. With this knowledge it is possible also to supply what is deficient. Thus has been brought about a change in the condition of the rural classes which has marked effects upon the economic and social progress of the whole state. But what has been accomplished serves only as an incentive to further investigation. Great numbers of agricultural chemists, in and out of the experiment stations of the world, are devoting time and money to the solution of problems of vital interest.

The science of medicine, as well as agriculture and mineralogy, is greatly indebted to chemistry for its power to conserve and advance civilization. To both the physician and the pharmacist such knowledge is essential. The number of medicinal substances that have been added to the materia medica by means of chemistry is very large. The wonderful advance of surgery resulting from the discovery of chloroform, ether, and other anæsthetics and antiseptics, together with the consequent boon to suffering humanity, is well known. Of no less importance is the aid it has given in the work of checking contagious diseases that devastated the world in former days. The whole of sanitary science, of such immense value to human life and progress, is largely based upon the researches of chemists.

Having provided thus efficiently for the human body and its material wants, it has not neglected to advance the mental development of mankind. The study of chemistry as a means of liberal education furnishes a course of mental training no way inferior to that offered by the classics. Theoretical chemistry demands the active employment of the brain to its utmost capacity. While the processes of the art are governed by rule, investigations in chemical theory are original, and the student must be master of his own faculties. He deals with phenomena from which he can derive the governing law only by making exact observations, precisely defining what is observed, using fixed terms, arranging the results in classified order, and rationally explaining them.

The two fundamental processes of chemical investigation are hypothesis and experiment. A hypothesis is a carefully devised supposition of existing conditions and relations, taken as a working idea in investigation. Every hypothesis must be sustained by repeated experiment. Experiment is the type and model of the methods of arriving at truth, and involves exact observation and correct inference. Chemical experiment is the placing of matter under certain known conditions and observing its behavior with a view to securing a fund of particular facts from which to derive by generalization a fundamental law. By such hypotheses have all great generalizations of modern chemistry been secured, and by these has the mind of the chemist been fully developed in power, acuteness, and breadth of comprehension.

But the benefit has not been confined to his mind alone. This true scientific spirit which he first evoked has seized upon the minds of men in every profession and occupation, until at last the methods of intellectual culture of the chemist have become the common methods of the people.

Exerting, as it does, a marked influence upon the physical and mental development of mankind, it would be strange if chemistry had no corresponding power over the training of the moral nature. That it does possess such a power cannot be disputed. The generalizations that are constantly being carried on in the realms of science result in a gradual growth of the world's ideas, lift man to a higher plane of living, and increase his happiness.

Chemistry exacts of every student full and perfect obedience to its many laws, under penalty of complete disaster. Every chemical operation, however insignificant, requires compliance with certain specific conditions. A failure to meet this requirement will not only be fatal to the desired result, but may involve a loss of property, and even life. In every phase of his professional career the chemist is ruled by the laws of his science, the least violation of which is punished with inevitable failure. Obedience, the essential of all moral training, thus becomes second nature to the successful chemist.

In former times the chemist was often compelled to face persecution and death in the pursuit of his profession ; to-day hardship and self-sacrifice are common to the devotee of chemistry. The world's great chemists are not actuated by self-love or avarice ; truth and the welfare of humanity are the great ends they seek.

The student, upon his first introduction to chemical physics, finds himself contemplating a new universe. Each atomic group is a definite system in itself, moving in every direction, acting and reacting on others through the strange incomprehensible medium called ether. When he first attempts to discern this new universe through the senses, scepticism naturally arises. When his trained intellect thinks out the details of the unseen mechanism, perceives the laws governing the arrangement and retention of the invisible atoms in the moving molecule, sees the relation of the molecular vibrations to the three states of matter, and to the phenomena of heat, electricity, and chemical affinity, he believes that all this cannot be an illusion, a wild flight of fancy, but must be a veritable fact, since it is warranted by the

*From the *Popular Science News*.

principles of mathematics, and is requisite to the truthful interpretation of nature.—*Pharmaceutical Journal.*

The Progress of Chemistry.*

By Alfred R. L. Dohme, Ph.D., Baltimore, Md.

The eighteenth century, as it drew to its close, witnessed the birth of chemistry. Was there ever a more promising child, and a more brilliant increase in the family of sciences? Whence sprung this precocious and wonderful infant? From pharmacy, its mother then and protectress ever since. Chemistry owes a great debt to pharmacy, for many of those pristine disciples of her teachings, such as Scheele, Liebig, Proust, Klaproth, and others, began their career in pharmacies. It was because pharmacy was then purely empirical that chemistry, the science upon which pharmacy rests and depends, soon outran her parent. By lending her scientific spirit and results to her good mother, chemistry has endeavored to repay her debt of filial gratitude, and is to-day lending such aid to her sturdy parent that the latter has become rejuvenated, and, after shedding her nineteenth century skin, deigns to again catch up to the rapid pace set by her daughter.

THE SEARCH AFTER ACTIVE PRINCIPLES.

Yes, the scientific investigation of the many unsightly drugs that we must now handle will, in due season, bring to light many beautiful pure chemical substances that will replace their mother drugs, and, because they are pure, and hence always the same, will enable that promising science pharmacology to render scientific medicine and prescriptions possible. Many conservative pharmacists and physicians will incredulously smile when they hear this, but it is bound to come, because the progress of science knows no obstacle, and the field of the vegetable drugs will present the widest and most fertile prospect to the scientific investigator of the twentieth century.

More and more chemists every year are putting their energies into the chapters of pharmaceutical chemistry, and no number of the *Berichte der Deutschen Chemischen Gesellschaft*, *Annalen der Chemie*, *Journal of the Chemical Society*, *Journal fur Praktische Chemie*, *Chemical News*, etc., now makes its appearance that does not contain some valuable contribution to pharmaceutical chemistry. It is not the synthetic products that I refer to, for they belong to the province of pure chemistry, but to the thorough investigation of the natural constituents of drugs, such as alkaloids, glucosides, acids, etc., and derivatives of these. Does anybody present here know exactly what digitalis contains, or ergot, or cascara sagrada? If so he would render this association, and the pharmaceutical and medical world at large, a most invaluable service if he would unbosom himself. Exact modern persevering investigation has not yet been applied to them, and the best we can say of any of them is "probably about."

But, one by one, the more prominent drugs are being taken up by expert hands, and it will not be many meetings hence that one of my successors in this position will be able to report to you that digitalis contains so and so, and that such and such substances are the active principles of the drug. We will then know that digitalis contains such and such substances, possessed of such and such properties, and having such and such effects upon the human body. We will know that certain of them possess therapeutically valuable properties, possibly of different natures, and that others are therapeutically valueless. When this is done for all drugs we will have placed pharmacy on a very high and enviable seat among her sister sciences. So much in anticipation; now for the retrospect.

What has the Past Year Added to Our Store of Facts?

THE DISCOVERY OF ARGON

by Lord Rayleigh and Professor Ramsey, and of helium by the latter, should perhaps rank first as the most momentous discoveries of the year. The former, as the most inert substance known, not uniting even with halogens, was discovered as a result of a very slight discrepancy noticed by Lord Rayleigh in weighing what he knew to be pure nitrogen. He passed a weighed quantity of pure nitrogen over heated magnesium, which absorbs it readily to form magnesium nitride, and he found to his great surprise that something to the extent of 1 per cent. was left that could not be made to unite with the magnesium. It was made in quantity, found to be in the air, and its spectrum, atomic weight, etc., determined. The atomic weight was found to be forty, the same as that of calcium, and its molecule was found to be monatomic. Although so indescribably inert, argon threatens to cause an upheaval in the chemical world, for there is no place for it in the periodic system of the elements, a system which, as we all know, underlies our entire chemical fabric, and has been productive of more numerous and valuable results and researches than any other theory ever advanced in chemistry. We must await the result of a better acquaintance with this new element before anything definite can be stated.

HELIUM,

also a colorless gas, is one of the elements known to be in the sun, but never yet found upon the earth. In making an analysis of a Norwegian mineral, "cleveite," Professor Ramsey obtained this gas, together with argon, upon treating the mineral with sulphuric acid. The reports upon it are only vague as yet, although the spectroscope shows that its lines correspond to certain of the solar lines that have never yet been obtained from elements on the earth. Statements that helium is the basis of all elements are purely gratuitous and without foundation in fact. The scientific world awaits with bated breath further researches on helium and argon, as these elements possess properties that are new to chemists and different in nature from the chemical properties of any known class of substances.

THE STUDY OF ESSENTIAL OILS.

The most actively worked field of investigation for the past year or more is that of the essential oils, which, thanks to the great work of Professor Wallach, of Gottingen, and Professor Baeyer, of Munich, has at last been so worked up that daylight has been caused to shine upon many of them, and they are all being gradually studied and classified. The essential oils, consisting mainly of terpenes and camphors, are not only common substances and widespread in nature, but present to the chemist a most fascinating field of work on account of their subtle nature and ready manipulation and change. When we realize that practically all terpenes and camphors have the same empirical formulas, $C_{10}H_{16}$ and $C_{10}H_{16}O$ respectively, and that they number many while possessing such markedly different properties, we can appreciate the interest they present to the skilled investigator.

PLANT SECRETIONS.

Professor Tschirch and his school of Berne have begun what promises to be a most interesting piece of work—the examination and origin of plant secretions. He has already taken up the balsams of Peru and tolu, as well as gum galbanum, and we will soon know all about these apparently unapproachable and chemically uninteresting, though pharmaceutically valuable, substances. He finds that, besides containing benzyl benzoate and benzyl cinnamate, they contain the benzoates and cinnamates of a peculiar class of substances which he calls tanniferous resin-alcohols, and which are the true resins of these balsams. He has obtained thus from Peru balsam peruresino-tannol and from tolu balsam toluresino-tannol, as he terms them, in pure crystals, and has determined their properties, composition, etc.

THE SYNTHESIS OF ALKALOIDS.

Kostanecki has made synthetically gentisic acid and gentisein, and found that the former is hydroquinone carbonic acid. By heating this with phloroglucine he obtained gentisein, which is 1-3-7 trioxyxanthin, and the monomethylester of which is gentisein. Beckurts has devised a method of determining theobromin in cacao and Palladino has isolated a new alkaloid from coffee, caffearine, $C_{14}H_{18}N_2O_4$, which is a narcotic, and in doses of two decigrams has been found to kill frogs.

In the field of alkaloids there has been the usual activity. Professor Fischer, of Berlin, has made a successful synthesis of

* Annual address of the Chairman of the Scientific Section of the A.Ph.A.

caffeine, starting from urea. The process is rather complicated, including as many as six or more intermediate stages, but he thinks it will prove of value commercially. This is, perhaps, the most important discovery in the field of alkaloidal chemistry.

A NEW ALKALOID FROM GOLDEN SEAL.

E. Schmidt has isolated a new alkaloid from golden seal, which he calls canadine, and which he found is tetrahydro-berberine; Freund is busy with aconitine and thebaine, and we probably will soon know exactly what these substances are and be able to recognize them and determine them; Knorr is still busy with morphine, which he has definitely determined is a derivative of phenanthrene; Koenigs is plodding along steadily at quinine, and his work on this alkaloid will soon fill an entire book. There is no doubt that he knows more about the constitution of quinine than any other man living. Miller is endeavoring to settle what cinchonine is, Petit and Polonowsky are doing the same for eserine, and Pinner has practically shown that nicotine is methyl-*B*-pyridyl pyrolidine. Emetine has been shown to consist of emetine and cæpheline by Paul and Conrad, and the first result of the determination of the constitution of emetine has been published by Kunz-Krause and contradicted by Paul

DISCOVERIES IN CHEMISTRY.

Klein has determined the formula of santonin, Goldsobel that of ricinoleic acid, the active principle of castor oil, and Taverne has shown that convolvulin is a glucoside of methyl-ethyl-acetic and oxypentadecylic acids. Kobert has isolated cannabindon, a red syrupy liquid from cannabis indica, and shown that the narcotic effect of this drug is due to this substance. Griffeth and Ladell have isolated a ptomaine from the urine of grippe patients, which is toxic and produces high fever.

Ciamician and Silber have shown that cotoin is mono-methyl-benzoyl-phloroglucin, and Lerchsenring has separated in pure form from kooso flowers, kosin, protokosin and kosotoxin, of which the latter only is an active principle. It has been shown that the orchid Nigritella, which grows wild on the slopes of the valley of Lauterbrunnen in Switzerland, and perfumes the air for miles around with the odor of vanilla, does actually contain vanillin and heliotropin.

A rather unexpected discovery is the fact that hydrogen dioxide, when free from alkalies and any metallic impurities, can be distilled undecomposed even at high temperatures. We have no doubt all read with much pleasure the interesting and valuable work of Emil Fischer on the sugars, by which this great investigator has so clearly shown what these complex and chemically unapproachable substances are. It is of value to remark that he has recently announced a general method of producing glucosides synthetically from glucose and the respective acid or alcohol. This may open the door to the synthesis of the glucosides of some substances that are unpalatable in their present form, and also be the cause of their activity being increased.

PHARMACEUTICAL CHEMISTRY IN GERMANY.

It is of interest to know that some of the prominent German universities are now endowing chairs of pharmaceutical chemistry, as they no doubt recognize the great benefit that the development of this branch of chemistry may have upon the nature of the medicines taken by the people, as well as the discovery of potent specifics against disease. There is a demand for this chair, as the number of students that evince a desire to work in the field of pharmaceutical chemistry is continually increasing, if one may judge by the current literature of the day. Prof. Erich Schmidt, of Marburg, has been called to the newly constituted chair of pharmaceutical chemistry of the University of Berlin, but has not accepted, for the reason that there are no facilities for good work offered there, whereas at Marburg he has everything as he desires it.

WHERE WE NEED DEVELOPMENT.

In our own country competition for positions is not so great as to stimulate men to become investigators and indulge to any extent in original research, and with few exceptions pharmaceutical schools do not educate men up to the standard of undertaking original work. But the noble spirit and ambition that inspired our own Proctor, Parrish, Mahla, Maisch, Squibb, Prescott and many others of the founders and older members of this association, and brought forth many valuable contributions to pharmaceutical science which found recognition in every part of the civilized world, is still alive among the host of younger members, and I know they will not fail to be worthy of the founders of this association.

Yes, we have good workers and well trained and educated chemists and pharmacists here, and there can be no doubt that the standards of the colleges of pharmacy are being, and will continue to be, raised in this country, so that when a man has the inclination and ability he can fit himself for doing the very best of research work in pharmaceutical chemistry. We must develop the departments of pharmacology and physiological chemistry, besides pharmaceutical chemistry, in our colleges, because they are valuable and necessary adjuncts to a thorough and successful training in pharmacy.

THE WORK OF THE GERMAN CHEMICAL SOCIETY.

German schools of pharmacy appreciate and have acted upon this, and we should not lag behind. What has helped along the great German chemical industries during the last thirty years, and placed them so very far ahead of all other countries? It is the great work of the German Chemical Society, founded by the late lamented father of these industries, August Wilhelm von Hofmann, whose *Berichte* penetrate wherever the word chemistry is known, which numbers over 3,000 members, scattered all over the globe, and which has so stimulated men to work in chemical research that every branch of the science has become overcrowded with workers, and this surging mass of keen, well trained, and highly educated men has, by sheer competition in excellence and pride in their association and their country, forced the chemical industries thereof so far to the front that they have practically distanced all competition.

PATRIOTIC GERMANS.

This is laudable, this is commendable, on the part of the Germans, this spirit to excel and push their society and their country forward by pride and their energy, and there is no reason why we should not develop this same pride in our association and country. Why cannot we make our "proceedings" so valuable and so interesting to all pharmacists and chemists the world over that they will be anxious for the day when the next current number arrives and pay willingly a reasonable sum to receive it? Why cannot this American Pharmaceutical Association occupy the place in the pharmaceutical world that the German Chemical Society does in the chemical world? We have the talent and ability in this country, but they are latent and need fostering and encouraging. We cannot reach the goal at one jump, but we should strive to reach it, for it is the most commendable and desirable one this association can look forward to. How can it be accomplished, or rather how can we make a great step toward its accomplishment? Let me make a suggestion:

A RESEARCH COMMITTEE.

I would strongly recommend as a most desirable step the appointment by this association of a committee to be called the Committee on Pharmaceutical Research Work, to apportion out the work of research and investigation in the various branches of pharmacy and annually make a report to the association. If our association is to publish scientific and valuable knowledge for the benefit and enlightenment of its members and the scientific world at large, and I believe no nobler purpose could be engraved on its escutcheon, how better can this be accomplished than by the systematic, persistent work of an active committee capably directed?

Phenacetin Smuggling.

The smuggling of phenacetin and sulphonal from Montreal into the United States has again revived, a large quantity having been taken recently to New York and Boston. The United States Treasury officials are investigating the matter, and expect to make some arrests. A strict watch is, it is said, being kept on suspected parties in Montreal.

Deadening Routine.

Hard work, unremitting attention to business, are admirable in an ambitious druggist, but it is a great error to regard them as the sole essentials in the struggle for success. An intelligent idea, an original or novel thought, is worth more than a deal of plodding. The bane of the druggist's life to-day is not indolence or aversion to drudgery; quite the contrary; many a druggist wears the harness so many hours in the twenty-four as to deaden his originality and transform his thinking faculties into the useless ornament of a business pack-horse.

Judicious recreation, occasional change of scene, observation of other people's methods, are the best investment of time and money the druggist can make. They lift him from the narrow routine of his business. They refresh his body, stimulate his brain, give him new ideas, enable him to look at his store critically as he would at a stranger's, and suggest new ways and means of creating business.

The curse of any occupation is routine. Success is bought by originality not less than by hard work, by brains not less than by labor. A mechanical repetition of the same duties, day in and day out, begets machine-like habits of thought. Routine is deadening, and must be constantly fought off. How? By hours of leisure devoted to thought and meditation; by reading in moderation: by vacations; by any form of exercise which corrects the sedentary life of a hard-working druggist.

The drug business to-day requires an alert brain more than willing hands. And a good brain must be used like a good horse, if its best work is demanded. It must have leisure for rest, and ideas whereon to feed. A fagged or jaded brain is never the source of original ideas. Such inspirations come only through fresh and active minds

With respect to exercise, a silent revolution is now working wonders among the sedentary of all classes. The steel steed has come among us, and has come to stay. The bicycle is the best friend of the exhausted business man. It gives change of scene and wholesome exercise at a small cost of nervous energy. It bears away the druggist at an exhilarating speed from the four walls of the pharmacy and the roar of the city's noise, to the woods and the fields and the silent sky. Never in the past have we had at our command any form of exercise worth a penny to a *tired* man. A merchant or professional man, after a day's hard work, needs rest more than exercise, and his nervous system is certainly in no condition to profit from rowing or gymnastics—these are too severe. Gentle walking is too tame; horseback-riding too expensive. But a light wheel is swift, silent, comparatively cheap, and ridiculously easy to propel. It supplies the ideal exercise for the sedentary, the nervous, and the unathletic. And it affords easy access to scenes of refreshing, elevating, and inspiring recreation.

Of all the hard-headed, practical minds of this century, not one was more strikingly sound and sane than the wonderful mind of Helmholtz. He had often pondered on the possibility of increasing the gift of originality, the native cleverness, the creative faculty which fills the mind with ideas, thoughts, discoveries. And what was his conviction? Listen to the noble speech in which he expressed it at the jubilee of Heidelberg University in 1886:

"But labor alone is incapable of conjuring up original, light-giving conceptions. Such thoughts spring, like Minerva from the head of Jupiter, unexpected, unannounced: we know not whence they come. This alone is sure—that to him who is wearied and worn with monotonous toil they come not at all. A feeling of exuberant life and power must be present—such a feeling as wandering in the pure air of mountain-heights can best impart. And when the serene peace of the forest fills the soul of the wanderer, when the rich and fertile plain with its meadows and villages lies outspread before him, when the sinking sun spins its golden threads about the summits of distant hills, then are formed by sympathy in the dark background of the soul the threads of new ideas destined to bring light and order into the inner world of thought, where chaos and darkness before prevailed."—*Bulletin of Pharmacy.*

Business and Scientific Education.

What are you going to do when you graduate? is a question often asked and so often left unanswered. There are many things to do. First is nothing; second, get a job, and begin to fill the much-depleted purse—that is, if there *is* a purse. It is not well to postpone the recommencement of study too long—every month makes it harder. Humanity so quickly falls into habits—these gradually forming trails, footpaths, and, lastly, roadways—which they follow, slave-like, until they are part of their existence.

Study is a habit—easy to continue, and often a pleasure, when it has intelligent guidance or enthusiasm to accompany it. If graduates would bear this in mind, they would hesitate before giving it up as soon as they leave college. It is not that we think they should pursue scientific research, but to perfect themselves in some branch where they are deficient—not one of doubtful value, but one of utility in the profession and the business which they have chosen for a livelihood.

Not that we hold lightly the knowledge gained in a college, but its aids are only partial to business success.

One of the best things a graduate can do, if he needs it, is to familiarize himself with accounting. Follow up the habit of study, applying it in this branch, and take the same hours daily in a business college, and the time will be well spent. This is a detail of great importance, and is the very foundation of business life. So many graduates think that their diploma insures them recognition in the commercial world. Nothing of the kind. It is entirely apart from it. Again, some speak lightly of a diploma because it does not carry such a guarantee. This is also wrong, for a man may well be proud of such credentials from any college in good standing, for it shows that he can make sacrifices of time, money, and pleasures to gain this end; more than this, it shows that he has staying qualities, and these, if in the right course, usually lead to success.

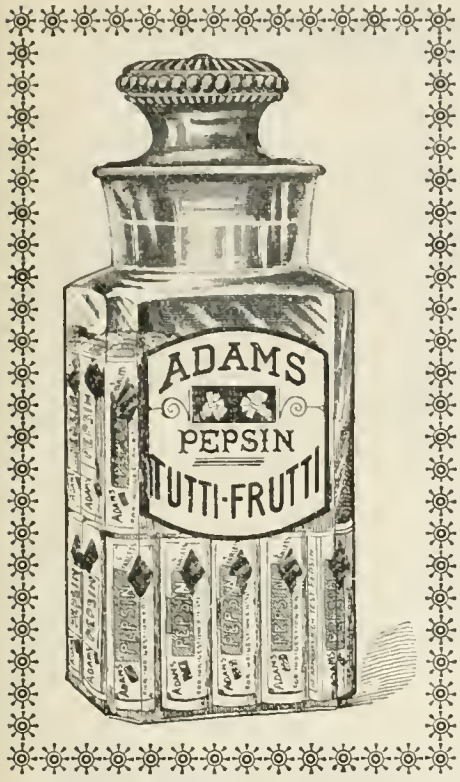
It is nothing to be proud of to begin any line of study and fail to pursue it. If you think you are unfit for it, don't begin. Educators all over the country are arguing pro and con as regards practical experience, and there is much to be said on both sides. All agree, however, that business experience and a knowledge of business forms is the very foundation of the success of the pharmacist. Or, to put it plainly, learn how to buy close and sell profitably, yet please the people while you are doing it.

All we mean to say is this: That every position of life—every occupation—calls for a combination of ability, training, and experience, and in that of the druggist business education is a factor of success not to be overlooked.—*Frank T. Green, in Pacific Druggist.*

Phenol Sulphoricine.

This preparation is a mixture of sodium sulphoricinate, 80 gm., and carbolic acid, 20 gm. To prepare the former pure castor oil, 1 kilo., is treated in the cold with pure sulphuric acid (66°), 250 gm. The acid is added gradually in small quantities, and the mixture agitated, so as to avoid any considerable elevation of temperature. There should then be but a slight evolution of sulphurous acid. In an hour's time the product, which is insoluble in water, is washed, first, with cold water, then several times with 10 per cent. salt solution. Finally, the "sulphoricinic acid" is neutralized with a sodium salt, and the product is known as "sodium sulphoricinate," though probably not a definite salt. Care must be taken to keep it somewhat acid, and after standing for an hour or two it may be cleared by decantation or filtration. The compound is a thick yellowish syrup, with no odor and little taste, and has been variously known as "solvine," "polysolve," and "sulpholein." The solution of carbolic acid in it (5 p.c.) has been chiefly used in the treatment of diphtheria.—*Pharmaceutical Journal.*

A New Cinchona Alkaloid.—Dr. de Vrij announces the discovery of a new alkaloid in the bark of *cinchona lidgeriana*. He says that "this alkaloid is found in small quantities in the bitter liquors of the tartrates of the alkaloids."



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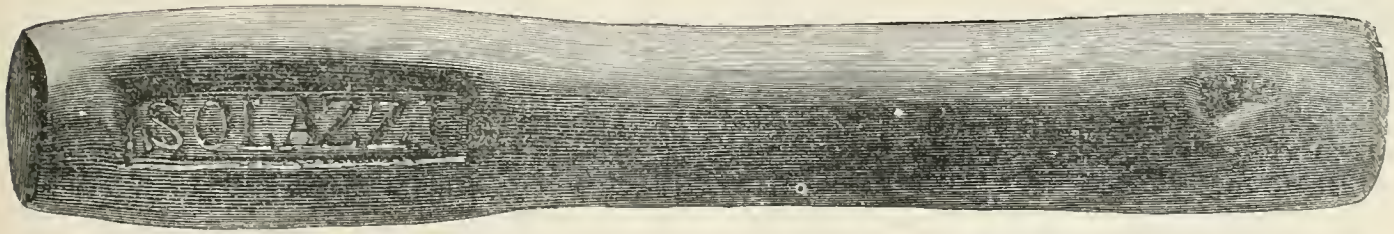

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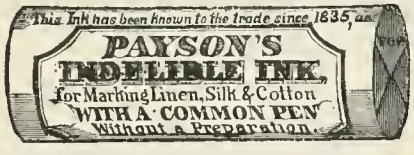
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How Artificial Camphor is Made.

The scarcity of genuine camphor has, it is said, led to the manufacture of an artificial article, and it is rumored that a certain firm has forwarded shipments of the latter to Hamburg and then reshipped it to England as genuine camphor. Artificial camphor may be made by passing a current of dry hydrochloric acid gas through spirits of turpentine cooled by a freezing mixture. The liquid darkens and deposits crystals, which are dissolved in alcohol and precipitated by water. The separated crystals are drained and dried. They are perfectly colorless, with an odor like camphor. It may be added that this artificial camphor melts at 115° C., and boils at 165° C. with decomposition. At the ordinary temperature, its vapor tension is sufficient to cause it to sublime like ordinary camphor in small brilliant crystals in the bottles in which it is preserved. It is insoluble in water, and gyrates when on the surface of that liquid like true camphor. Real camphor (laurel) melts at 175° C., and boils without decomposition at 204° C.—*Food and Sanitation.*

Eucalyptene.

Voiry, in the course of his investigations on oils of eucalyptus, has determined the presence of a strongly dextrorotary terpene in the oil of *Eucalyptus globulus* distilled in Southern France. Bouchardat and Tardy have prepared a number of derivatives of this body in order to compare them with those of lævo-terebenthene. This dextrorotary terpene appears to correspond exactly with the lævo-terpene which is the main constituent of the pine product. It boils at 156°—157°, and has a specific gravity of .870 at 0°. Its optical activity is $(a)_d = + 39°$. The principal body studied by the authors is the product of hydration. By the action of absolute formic acid they have obtained an alcoholic formate, which, when saponified, yields $C_{20}H_{18}O_2$, a body corresponding in all details to the one prepared from the lævo-terpene. It crystallizes in voluminous masses, melting at 33°—34°. It boils at 218°, and is dextrorotary $(a)_d = + 88°$.—*Bull. de la. Soc. Chim. de Paris ; British and Colonial Druggist.*

Magnesium Salicylate.

R. van Gool points out that when prepared by neutralizing salicylic acid with magnesium carbonate, this compound, instead of being pure white in color, has a more or less pronounced pink tint, owing to the presence of iron in the magnesium salt used. He therefore recommends the following process for the preparation of the compound free from impurities : Sulphuric acid is neutralized with calcined magnesia, and to the solution of magnesium sulphate he adds first hydrochloric acid, then potassium sulphocyanate in excess, lastly shaking with ether. The aqueous layer is drawn off and again shaken with ether until the latter is no longer colored by the ferric sulphocyanate, showing that all traces of iron have been removed. The solution of magnesium sulphate is next evaporated to a low bulk and allowed to crystallize, after which the product is washed with spirit to free it from the hydrochloric acid and excess of potassium sulphocyanate which it contains, until no reaction is given with ferric chloride. The pure salt is then dissolved in distilled water, and solution of sodium carbonate added gradually until precipitation is complete, the solution being constantly shaken and kept at a temperature of 70° C. The precipitate having been washed with water until free from sodium sulphate is mixed with a little water, neutralized with salicylic acid at the temperature of a water-bath, and finally evaporated to dryness at the same temperature.—*Jour. de Phar. d'Anvers ; Phar. Journal.*

New Remedies.

Apolysine is a monobasic derivative of para-phenetidin, analogous to the tribasic derivative, citrophene, which has been recently described in these columns. It is a yellowish white powder, forming perfect crystals, of an acid taste and slight odor, soluble in cold water (1 in 55), and melting at 72°. It is soluble in alcohol and glycerine, and in strong sulphuric or nitric acids, without coloration. On warming, the last gives an orange-coloured solution. It is used, according to Nencki and Jaworski, in doses of 7 to 10 grains. It has a rapid antipyretic action, without after inconvenience. It is absorbed easily and perfectly, and is preferable in this respect to phenacetin. It is non-toxic in even large doses. *Rhinalgine* is the name given by Thomalla to suppositories of cacoa butter, alumnol, and essence of valerian, for use in the nose in cases of coryza. *Di-iodocarbazol* is prepared by the action of iodine on solution of carbazol, with the aid of reagents giving rise to hydriodic acid. It is insoluble in water, easily soluble in benzol, ether, or warm alcohol. It crystallizes from acetic acid in lamellæ, melting at 184°. By the action of heat iodine separates. *Iodine Derivatives of Diphenylamine* are being recommended as substitutes for iodoform on account of their strong antiseptic power, and their freedom from odor. *Eudoxin* is the bismuth salt of nosophen, a new remedy, which we recently described as tetraiodophenolphthalein. It is a red-brown powder, odorless and tasteless, insoluble in water, dissolving in alkaline solutions with the production of a blue-violet color. It is non-toxic, and can be administered internally, if necessary, in cases of gastric or intestinal troubles. It is a strong antiseptic as a dusting powder. *Antinosine* is the sodium salt of nosophen. *Phosphergot* is the name given by Luton to a mixture of phosphate of sodium and ergot of rye. *Chlorosalol* is, as its name implies, a salicylic derivative of chlorophenol, and is prepared in two forms, the ortho and the para derivative. The ortho-chlorosalol has a strong odor, whilst the para-chlorosalol is odorless. *British and Colonial Druggist.*

Cinchona Speculation.

A short time ago it was announced that it was proposed to erect a quinine factory upon the Island of Java. Whilst this has not yet been accomplished, it appears that negotiations are on foot with the planters, which will, if consummated, have a marked effect on the quinine market. Dr. Buchler has gone out as a delegate from the German manufacturers and one English manufacturer, and has been at Solkaboemi for some short time. The purpose of his visit is to make a contract for five years with every cinchona planter on the island, without exception. The terms proposed by Dr. Buchler, on behalf of the manufacturers, are as following : (1) They shall pay per half-kilo of bark at the rate of 6 *centens* (50 centens are almost equivalent to one shilling) per unit. By a unit is meant each 1 per cent. of quinine sulphate from the bark. Thus a bark yielding 5 per cent. would cost 60 centens per kilo. (2) To allow the planters half the profits that the manufacturers make after the quinine sulphate has fetched 24 florins per kilo. This price is considerably higher than that holding on the markets. In return, the Java planters must unanimously agree not to supply more than half the bark required for the world's consumption. This is estimated at 225,000 kilos. of quinine sulphate, so that Java shall only furnish bark for 117,500 kilos, which, taking 4 per cent. as an average yield, shall be estimated as 2,937,500 kilos of bark. The necessity for increased payment for the bark is seen by the fact that in 1894 Java furnished 5,293,750 kilos of bark, or nearly sufficient for universal consumption. If these arrangements end in a contract, the French and American manufacturers, together with other English and smaller manufacturers, will be unable to obtain upon the market any but Indian, Ceylon, American, and African bark. This would, of course, lead to a marked advance in the price of quinine, but whether the negotiations will be brought to a successful issue or not remains to be seen.

A New Acid-Proof for Boxes, Etc.

To avoid breakage and save weight in such objects as battery cups, etc., many efforts have been made to supplant glass or earthenware by wood or paper, but the endeavor to obtain a perfectly acid-proof covering for such articles has hitherto not been crowned with entire success. According to a French industrial paper, however, such a substance has at last

been found, namely, a mixture of gutta-percha and paraffin, in equal parts. The substances are cut into little cubes, and the gutta-percha is melted over a very gentle fire. When it is quite liquid, the paraffin is stirred in, and the heat continued until a homogeneous mixture is obtained This mixture is very fluid, and flows freely on any surface to which it is applied. The box or article to be treated is thoroughly dried and warmed, and a portion of the mixture is poured into it, the article being moved around so that the liquid penetrates every corner. Any surplus is poured back into the melting pot. The external surface is treated in the same manner, and the operation is complete. It sometimes occurs that little spots are left unprotected, and, when this happens, the fault is corrected by placing a little cube of the mixture, which has been allowed to cool, on the spot and applying a soldering iron or a hot iron of any kind to it. In the same manner any roughness of surface is remedied. Wood or paper boxes thus treated are found to resist battery acids, etc., in the most complete manner. Every pharmacist will at once think of many uses to which this easily made mixture is applicable.—*National Druggist.*

The Adulteration of Vanilla with Poisonous Substances.

The *Pharmaceutische Zeitung* states that in order to impart a black lustre to vanilla the fruits are covered with a fatty oil. In Colombia the seed oil of *Anacardium occidentalel*, the so-called West Indian elephant lice, is used. The shell of these seeds contains *cardol*, a substance which will produce blisters similar to those raised by cantharides. Very minute quantities introduced into the intestines produce violent choleraic irritation, and this may very possibly account for the symptoms occasionally following the eating of vanilla. On the Isle of Reunion vanilla is trained about the trunk of *Jatropha curcas*, and it may thus be brought into contact with the poisonous juice of this plant.

Mica.

The uses of mica are manifold. One of its latest developments is distinctly novel. An ingenious Australian has invented and introduced a mica cartridge for sporting and military guns. The filling inside the cartridge is visible, and a further advantage is that instead of the usual wad of felt a mica wad is used. This substance, being a non conductor unaffected by acids or fumes, acts as a lubricant. When smokeless powders, such as cordite or other nitro-glycerine compounds, are used, mica has a distinct advantage over every other material used in cartridge manufacture. Being transparent, any chemical change in the explosive can be at once detected. The peculiar property it has of withstanding intense heat is here utilized, the breech and barrel being kept constantly cool. The fouling of the rifle is also avoided, the wad actually cleaning the barrel.

Loaded Sponges.

According to the *Oil, Paint, and Drug Reporter*, the rise in price in the various kinds of Florida sponges has given rise to an ingenious method of artificial weighting. Formerly lime and sand were employed for this purpose ; now it is stated glycerin and solution of silicate of sodium are used, the latter being selected for its admirable weighting properties and the ease with which it can be manipulated. One sample when tested showed a loading of about 25 per cent. of this substance.

The Soap Berry.

The nuts of the soap berry, *Lapindus saponaria*, were at one time brought to England, and used for waistcoat buttons, for which purpose they were highly esteemed on account of their durability. The skin and pulp which surround the nuts were also used for washing linen, The seed vessels form a lather freely with water. The whole plant crushed and thrown into the water of ponds or rivers kills all the fish. The Spaniards still use the nuts of this plant as buttons. The toxic and lathering properties alluded to are due to saponine. It is affirmed that linen frequently washed with the skin and pulp of these nuts is soon destroyed by some acrid principle that is also present, if not by the saponine, or some acid derived from it.—*Monthly Magazine.*

Medical Women in Russia.—According to the official register of medical practitioners in Russia, the total number of women licensed to practise medicine in the dominion of the Czar was 554. Of these 291 were private practitioners, 68 were in the public service as Poor-law medical officers, and 17 as sanitary officials ; 33 held appointments in schools and colleges for girls ; 31 occupied posts in private or municipal hospitals, and 10 in lying-in hospitals; eight had medical charge of factories or other industrial establishments, four were assistants in special educational establishments, and two held appointments in lunatic asylums. Most of these ladies had gone through the old courses for medical women in the Nicolai-Krieg Hospital of St. Petersburg, which were abolished in 1882. More recent statistics show that in August, 1894, the number of medical women had risen to 691. In the medical faculties of Switzerland there were, in 1891-92, 114 Russian women studying medicine ; the majority of these are described as "politically untrustworthy" from the official point of view. There is also a considerable number of Russian women, for the most part Jewesses, at present studying medicine in Paris. It is not considered likely that the opening of the School of Medicine for Women in St. Petersburg, which is, we believe, definitely fixed for July, 1897, will materially diminish the number of Russian ladies studying medicine in Paris, for it is stated that only women professing the Christian faith will be admitted to the new school.—*British Medical Journal.*

Beeswax is bleached by repeated washing and steaming and exposure to the sun.

Some of the common garden spiders spin webs so fine that 30,000 of them laid side by side would not cover the space of an inch.

Humboldt says that a single pound of the finest spider webs would reach around the world.

Senecio Alkaloids.— Grandval and Lajoux have succeeded (*Jour d. Pharm.*) in isolating two alkaloids from senecio vulgaris, which they designate senecionine and senecine, respectively.

Oxalic Acid Worthless as a Color Preserver.—A writer in the *Bulletin of Pharmacy* denounces as absolutely worthless the use of oxalic acid solution for preventing the fading of flowers dried for herbarium purposes.

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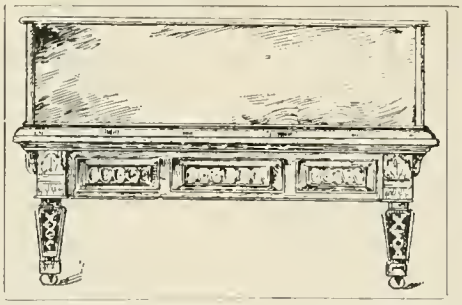

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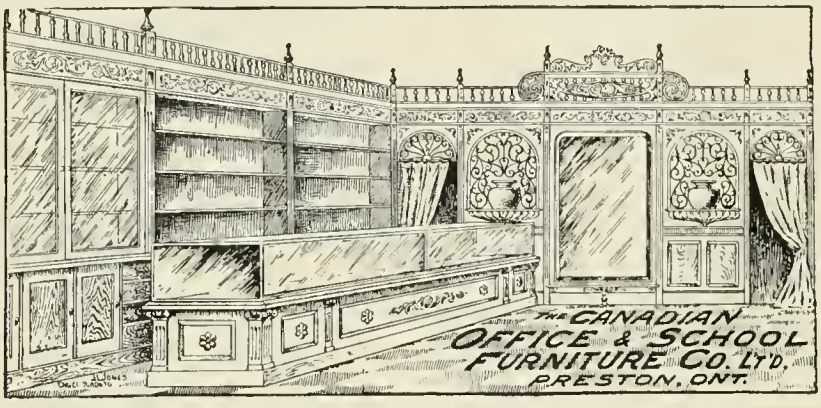

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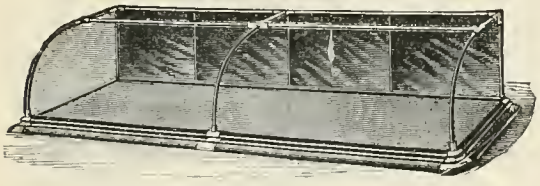

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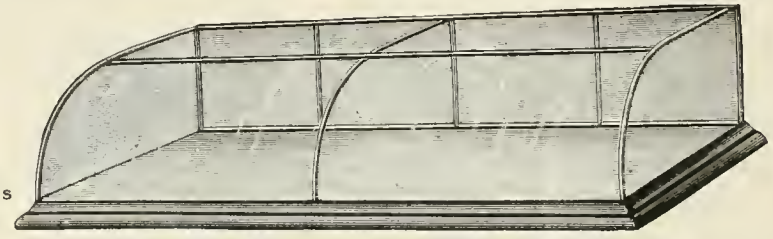

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A Glaring Nuisance and How to Abate it.

The average druggist realizes painfully enough the damage which has been done by the introduction and wide popularity of compressed and triturate tablets. By their direct sales to physicians, a number of houses have materially reduced prescription-writing. Now, is the popularity of tablets due to solid merit and practical convenience alone? By no means. Some of the formulas which are demanded in tablet form are pharmaceutical monstrosities—irrational, senseless combinations which would never be thus prescribed save by those who lack pharmaceutical knowledge.

Creosote, ammonium carbonate, menthol, camphor, and the similar drugs are hopelessly volatile; and in tablets, only comparatively minute quantities thereof can be exhibited. Calomel and sodium, save in small proportions, afford a most irrational combination. Salol combined with camphor is a monstrosity: one tablet-manufacturer claims $\frac{1}{20}$ grain of camphor in his formula for salol compound; the presence of such a proportion would liquefy the tablet! Benzoic acid is equally unfit for this mode of administration.

All of the solid extracts are subject to deterioration from the exposure they suffer in tablet form.

We would continue to multiply proofs that the world has gone tablet-mad, and we shall expect presently to receive orders for tablets of chloroform, absolute alcohol, and aqua pura! Thus, in the line of compressed tablets, what sense is there in demanding phosphorus? Phosphorus oxidizes readily, and has probably vanished ere the tablet reaches the patient.

Aside from pharmaceutical considerations, the druggist has the strongest possible business reasons for discouraging the use of tablets. They foster self-dispensing; they reduce prescription-writing to insignificance. It is apparent that prescription-dispensing should be one of the chief sources of income to educated pharmacists.

HOW, THEN, ABATE THE NUISANCE?

By striving to make your medical patrons and acquaintances grasp the following points:

(1) The irrational character of many tablet formulas, as set forth above.

(2) The far greater desirability of exhibiting medicine in the ordinary gelatin capsule, gelatin-coated pill, a fluid extract.

(3) The patient's preference for a specially prepared remedy. Everybody knows that the patient has less confidence in a "hand-me down," ready-made medicine. He wants a special prescription suited to *his* particular case, calculated to fit *his* symptoms, just as a tailor-made suit will fit his figure better than the machine-made garb. And it is in the doctor's own interest to respect this feeling.

It is an incontestable fact that the most intelligent way of administering medicine—the most certain and speedy, next to the liquid solution—is to fill the empty gelatin capsule with medicine in *powdered* form. Swallowed, the gelatin softens and dissolves in a twinkling, exposing its contents in finely divided state to the action of the gastric mucous membrane.

PROFIT TO THE DRUGGIST.

It goes without saying that capsule prescriptions afford a much better margin than either tablets or pills. A little more time may, indeed, be consumed; but, unfortunately, with most druggists time is the drug with which they are most abundantly supplied.

Prescriptions for capsules to be filled by the druggist mean another source of comfort: the ingredients are always at hand. When a prescription is brought into the average drug store, the druggist usually has a moment of painful uncertainty. "Can I fill it—have I the exact thing wanted?" If a specific pill or tablet formula is desired, it may be the very one the druggist has failed to stock. But the first glimpse of the "Ft." on a "℞" is a relief: it means, "I can fill that prescription."

The druggist, the doctor, the patient, are all the gainers when medicines in powdered form are dispensed in capsules —to the exclusion of the ready-made tablet.—*Pharmacal Notes.*

Notes on Soaps.

By A. Ashmun Kelly.

Soaps for cleaning metal work consist usually of mixtures of vaseline, oleic acid, and fat, with addition of a little rouge. Fresh, these are excellent, but they soon turn rancid, and become unfit for use. A soap free from this objection is made from cocoanut butter as follows: 2.5 kilogrammes of the butter is melted in an iron vessel, together with a little lime water, and to the mixture is added, with constant stirring, 180 grammes of chalk, 87.5 grammes of alum, and the same quantity each of cream of tartar and white lead. Pour this mixture into moulds to solidify. To use, the soap is made into a paste with water and rubbed over the metal and finally removed by a dry cloth.

M. Vigier's antiseptic soap, which has considerable sale in Paris, being useful for closing scratches and healing sores and cracks, is made of 12 parts dry sulphate of copper incorporated with 88 parts of any good soap material. The product has a pleasing green tint, and possesses an emollient action, without any irritating property. It is largely used in hospitals.

The following is a formula for a yellow rosin soap used in some parts: 100 lbs. cocoanut oil and 27 lbs. rosin are saponified to a clear paste with about 160 lbs. caustic soda lye of 23° B. To this paste is added 28 lbs. potash solution, 30° B., while gently boiling, after which it is filled with about 40 lbs. of warm soda water-glass, and hardened by successive addition of 20 lbs. of brine, 20° B. Finally it is colored with 1 oz. soap yellow, and perfumed with about 5 ozs. oil of Myrbane. This soap is quite hard, has a fine appearance, and is excellent for washing. An excess of soda lye must be avoided to prevent the efflorescence of the soap during cold weather.

A good stain-removing soap, useful in bleach, print and dye works, and other places, is thus described: Take 22 lbs. best soap and reduce it to thin shavings. Place the soap in a boiler with 8.8 lbs. water and 13.25 lbs. ox gall. Cover up and let remain at rest all night. In the morning heat up gently, and regulate it so that the soap may dissolve without stirring. When the mass is homogeneous and flows smoothly, and part of the water has been evaporated, add 0.55 lbs. turpentine and 0.44 lbs. of benzine, and mix well. While still in a state of fusion, color with green ultramarine and ammonia, and pour into moulds, where the mixture should be allowed to stand several days before using. This is an excellent product.

The nuts from the horse chestnut tree are utilized in a number of ways in France. From the seed vessels, when burnt, an alkali is recovered. From the amylaceous pulps the fecula is extracted, which can be transformed into glucose, dextrine, alcohol, or vinegar. The nuts yield a fatty matter useful for making a certain kind of soap. The ashes of the burnt nut contain 75 per cent. of potash.

Savon Bronce, a cheap soap extensively made in France, is prepared, according to Classen in *La Savonnerie*, in the following manner: 100 kilos bone fat, horse grease, etc., 20 kilos cottonseed oil, and 30 kilos black oil residues, are melted together in a large iron kettle; at the same time 100 kilos rosin are melted in another vessel. Both are then poured together into a frame lined with sheet iron. When the temperature has fallen to 40-45° C., 100 kilos 40° caustic soda lye is gradually poured in, with constant stirring. As soon as saponification is completed, 20 kilos water glass of 34-38° B., is added.

"Savon au potpourri" is a popular French toilet soap, and is made thus: White soap is reduced to a fine powder, and then the following perfume is added: Equal parts each of oil of cloves, oil neroli, oil thyme oil bergamot, ambra and oil of roses. Ambra tincture is prepared as follows: 25 grammes finely pulverized ambra is left for several days in pure alcohol (must be free from fusel oils), 86-90° in a warm place, and repeatedly shaken. The tincture is filtered through fine filter paper or glass wool into bottles, which can be tightly stoppered by means of ground-glass stoppers.—*American Soap Journal.*

Some Notes About Glass.

Glass is the offspring of fire. In his panegyric on wisdom, Job says of it, "Gold and glass cannot equal it," a proof of the value that was then set upon this material. The walls of the rock tombs of Beni Hassan, belonging to the twelfth dynasty of the Pharaohs, bear paintings representative of glass blowing about 2851 B.C. But sculptured glass blowers have been found in a much more ancient tomb. Glass eyes are often discovered with mummies, but they were placed with the corpse after death, and were symbolic of some religious rite. The oldest piece of glass in the British museum is a lion's head of opaque blue glass. It was discovered at Thebes, and by the inscription it bears must belong to the period 2423-2380 B.C. On both the Egyptian tombs and those of Thebes are frescoes of bottles holding wine. Some of these represent the bottles protected by wicker or leather coverings. Layard discovered quantities of glass at Nineveh, but the Egyptians appear to have held pre-eminence in the art of those early days. It is certain that they practised moulding in glass, but the art was lost till the seventeenth century, when one Lehmann of Prague reinvented it, and got a patent for the same from Rudolf II. It is probable that the Phœnicians acquired the art from the Egyptians, and in their turn taught it to the Israelites. Homer speaks of most works of art or ornament as the work of a god or a Sidonian. Solomon, in the building of his temple, appealed for assistance to Hiram, King of Tyre. To the Phœnicians the Greeks are also indebted for their knowledge of glass manufacture. From them the Romans learned it, and from the Romans came the diffusion of the art throughout Europe.

Herodotus, writing in 440 B.C., mentions glass, and Aristotle has two problems on glass: (1) "Why we see through it." (2) "Why it is malleable." Egypt became a Roman province in 30 B.C., and the tax which Augustus laid upon the conquered country was glass, wheat, and linen. The importation of the first named gave a tremendous impetus to the manufacture of the article. The Romans became fanatics in their desire to secure collections of glassware. Factories and workmen had to be removed to the imperial city, and the glass craze continued unabated for years. Nero was a great patron of the industry, but, like the baronet in the "Second Mrs. Tanqueray," he was given to smashing rare pieces of crystal when furious. As much as £1,500 was given by moneyed Romans for a single crystal bowl. For purposes of architecture, domestic work, and personal adornment the Romans used glass much more than we do to-day. It is singular how little the manufacture of glass has altered from the earliest times to the present. Pliny, writing of this, says it was made from sand found at the mouth of the river Vulturnus (an insignificant Roman stream, since renamed), which, being ground to a fine powder by a ball and mill, was mixed with three parts fossil alkali, then fused. A valuable quality in glass is its resistance to common solvents. Properly made glass can only be acted upon by hydrofluoric acid, which causes it to "scale." Although the materials employed in bottle making are coarse and impure, the quality of the glass is of great importance. It must resist corrosion and the solvent action of the substances imprisoned in it. Bottle glass varies in color from darkest green to white; the latter color is used for aerated waters. The materials ordinarily employed in its manufacture are common sand, gas lime, brick clay, common salt, and soap boilers' waste.

The first bottle was probably made of a gourd. Afterwards skins were used to carry water and wine. It is to these that the reference is made, "And no man putteth new wine into old bottles, else the new wine doth burst the bottles." This simile occurs three times in the New Testament, and appears to have been much thought of by the apostles. In the Old Testament references to bottles of wine occur in Hosea, Jeremiah, Samuel, and Job. These are always skin bottles. In one of his fits of indigestion, Job describes himself as "ready to burst like new bottles." In the country districts in Spain and Portugal at this day the traveller may drink wine from bottles made of goat skins. The flavoring is not nice. Leather bottles were used in England till the time of the Stuarts. There was a nursery song in praise of "The Leather Bottle," which we used to sing at school as a sort of rival to "Little Brown Jug," which was really an importation from Burgundy. The strangest receptacles for fluid I have seen were in New Guinea. There the inland tribes come down to the coast and carry away with them long bamboos filled with salt water, which they drink with as much avidity as we would the choicest wines or table waters.—*Exchange.*

Animal Charcoal as a Pill Excipient.

By Senor Evicle.

The dispensing of pills containing creosote, croton oil, etc., is one of the most important operations which present themselves to the pharmacist, and the processes published sufficiently indicate how much this question occupies the attention of every dispenser jealous of the faithful discharge of his professional duties. Animal charcoal exhibits, as regards creosote and croton oil, a considerable absorptive power. With creosote it is, moreover, absolutely necessary to use some inert substance capable of binding the pill mass; with croton oil this is unnecessary.

(1) Creosote pills containing 5 centigrammes in each. Place in a mortar about 2 grammes of animal charcoal, pouring on to the powder a gramme of creosote, or, better, 43 drops measured by the regulation pipette, stir quickly until a soft paste is obtained indicating that all the creosote is not entirely absorbed. Add little by little more animal charcoal (about 0.60 gramme) until the mass is converted into a moist powder not adhering to the pestle nor to the mortar. The creosote now forms with its excipient a powdery mixture which binds beautifully on the addition of 0.20 to 0.25 gramme of Venice turpentine. Beaten together quickly a pilular mass of perfect homogeneity and plasticity is produced, which, when cut into twenty pills, soon sets satisfactorily.

(2) Croton oil pills containing 5 centigrammes each. Croton oil, 49 drops. Animal charcoal enough to make twenty pills.

For these it is not necessary to use Venice turpentine, as the mass is easily made, and rolls well on the machine.

(3) In the case of a more complicated formula in which, for example, the creosote is associated with tannin and iodoform, animal charcoal will be found again very useful, as in the following prescription, which is very often met with:

Beech creosote..... .....1 gramme.
Tannin (prepared with ether)....1 "
Iodoform.....1 "

Make twenty pills.

To quickly get a satisfactory and smooth mass, first absorb the creosote with animal charcoal as previously directed, add the tannin and iodoform triturated together, mix well, and mass with Venice turpentine.

Pills thus prepared may be sent out rolled in magnesia, silvered or varnished with tolu varnish, which latter helps to mask the caustic taste of the creosote, although the animal charcoal does this to a great extent.

Animal charcoal enables one also to dispense creosote and similar medicines in the form of cachets, as in the two annexed prescriptions:

1. Cachets of creosote of..20 centigrammes each.
Beech creosote..... 2 grammes.
Animal charcoal..... 5 "

Mix intimately, and divide into ten cachets.

2. Cachets of Venice turpentine of.....50 centigrammes each.
Venice turpentine..... 5 grammes.
Animal charcoal..... 5 "

Mix and make ten cachets.

One can thus see that these substances hitherto only sent out in capsules, perles, or boluses, may be prepared by the pharmacist himself at his own dispensing counter, and by this means he will be able to send out an accurately dosed and prepared remedy of whose quality he has previously satisfied himself. — *Revista Farmaceutica Argentina; Phar. Journal.*

Lanolin rubber, made as follows, is much used in the Hospital St. Louis, Paris. Dissolve 1 gramme of pure rubber in the necessary amount of chloroform, and mix the solution with twelve grammes of lanolin.

WATSON'S COUGH DROPS = =

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FORMULA.—Borine *is composed of the active constituents of styrax benzoin, gaultheria procumbens, spiræa ulmaria, solidago odora, hamamelis virginica, the stearoptenes of thymus serpyllum, eucalyptus globulus, menthæ arvensis, with boracic acid.*

Borine possesses a fragrant odor and a very agreeable pungent taste. It mixes with water in all proportions, and is compatible with most of the preparations of the pharmacopœia. It does not injure or stain the most delicate fabric, and is therefore useful as a general disinfectant.

Borine is highly recommended as a *Mouth Wash*, as a *Gargle*, *Spray* or *Lotion* in inflammations of the throat, nose and mucous membranes; for *Inhalation* in croup, diphtheria and whooping cough; as a soothing and antiseptic application to wounds, burns, etc., and internally as a sedative, antifermentative and carminative in digestive troubles and in intestinal disorders.

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Formulary.

KOLA WINE.

The *Bull. Med.* gives this formula :

Fluid extract kola	30 parts
Tincture nux vomica	10 parts
Malvoisie or sherry wine, sufficient to make	1000 parts

EFFERVESCENT QUININE MIXTURE.

The following is an agreeable and effective method of dispensing quinine, which renders the alkaloidal salt more pleasant to take and, at the same time, more easily tolerated (*Rev. Intern. de Med. et Chirurg.*) : Sulphate of quinine, 2 grains ; citric acid, 10 grains ; simple elixir, syrup of orange, of each 30 minims ; distilled water to half an ounce. Each dose to be accompanied by a powder of sodium bicarbonate, 10 grains.—*Pharmaceutical Journal.*

NEURALGIA AND HEADACHE POWDERS.

(1) Acetanilid	5 grains.
Lupulin	5 grains.
Powdered sugar	q.s.

Make a powder. Three powders to be taken at intervals of four hours.

(2) Acetanilid	5 grains
Sodium salicylate	5 grains
Caffeine	1 grain

Make a powder to be taken as above. —*Chemist and Druggist.*

ANTISEPTIC TABLETS FOR PREPARING GARGLES.

L. Furst (*Pharm. Centralhalle*) gives the following formula for tablets, for the use of travellers, etc., one of which, dissolved in a glass of hot water, makes an antiseptic gargle, useful in all troubles of the throat and air passages :

Boric acid	150 parts
Salicylic acid	15 parts
Kitchen salt	30 parts
Saccharin	3 parts
Peppermint, eucalyptus oil, enough to flavor.	

Mix, and divide into tablets weighing 10 grains each.—*National Druggist.*

ELIXIR OF KOLA.

In answer to a correspondent's query of last month we give the following formula as recommended by Frank Edel (*American Druggist*) :

Fld. ext. kola	2	fl. oz.
Ammon. glycyrrhizin	1	dram
Saccharin	1	dram
Water	7	fl. oz.
Alcohol	3½	fl. oz.
Simple elixir	3½	fl. oz.

Dissolve the ammoniated glycyrrhizin in the water and in this dissolve the saccharin ; now add the syrup and alcohol, followed by the fluid extract of kola, to which has been added a few drops of oil of orange. Set aside, with occasional shaking during five or six hours ; then filter and bring its bulk up to one pint with simple elixir.

CHILBLAIN REMEDIES.

(1) Sozoiodol of zinc	1 part
Soft paraffin	10 parts
Mix.	
(2) Beef fat,	
Red ferric oxide	āā 250 parts
Magnetic iron oxide,	
Oil of turpentine	āā 30 parts
Oil of bergamot	2 parts

For broken chilblains :

(3) Carbolic acid	25 parts
Liniment of lime	500 parts
Mix.	
(4) Lycopodium, tannin	āā 17 parts
Lard	30 parts
(5) Tinct. digitalis	6 parts
Thymol	3 parts
Alcohol	150 parts
Glycerine	150 parts

Mix, and rub well on the affected parts. —*Quart. Med. Jour.* (*Les Nouv. Remèdes*).

EFFERVESCENT BATH TABLETS.

Tartaric acid	40 parts
Sodium bicarbonate	36 parts
Rice flour	24 parts

A few spoonfuls of this when stirred into a bathtubful of water cause a copious liberation of carbon dioxide, which is thought by some to be "refreshing."

This mixture can, we presume, be made into tablets by compression, moistening, if necessary, with alcohol. Water, of course, cannot be used in making them, as its presence causes the decomposition referred to.

Perfume may be added to this powder, essential oils being a good form. Oil of lavender would be a suitable addition in the proportion of a dram or more to the pound of powder. A better but more expensive perfume may be obtained by mixing 1 part of oil of rose geranium with 6 parts of oil of lavender.

A perfume still more desirable may be had by adding a mixture of the oils from which cologne water is made. For an ordinary quality the following will suffice :

Oil of lavender	½ ounce
Oil of rosemary	½ ounce
Oil of bergamot	1 ounce
Oil of lemon	2 ounces
Oil of clove	½ dram

For the first quality the following may be taken :

Oil of neroli	6 drams
Oil of rosemary	3 drams
Oil of bergamot	3 drams
Oil of cedrat	7 drams
Oil of orange peel	7 drams

A dram or more of either of these mixtures may be used to the pound, as in the case of lavender ; and they may, of course, be made up in smaller quantity if but little is required. The quantities given above are sufficient to make in each instance a gallon of cologne water by dissolving the respective mixtures in that quantity of deodorized alcohol—a fact noted for the convenience of the operator who may wish to dispose of the residues in that way.

These mixtures may also be used in the preparation of a bath powder (non-effervescent) made by mixing equal parts of powdered soap and powdered borax.—*Pacific Druggist.*

New Handkerchief Extracts.

The following are taken from the *Seifensieder Zeitung :*

STOLEN KISSES.

Jonquil extract	1,000	parts.
Orris-root extract	1,000	"
Essence of ambergris	120	"
Essence of civet	100	"
Extract of cassic	500	"
Spirit of rose, triple	500	"
Extract of tonka bean	500	"
Oil of citronella	6	"

Mix. Said to be "*herrlich.*"

BOUQUET D'AMOUR.

Extract of cassic	500	parts.
Extract of jasmine	500	"
Essence of ambergris	125	"
Extract of violet	500	"
Essence of musk	125	"

Mix thoroughly and filter.

"TANNENDUFT."

Oil of bergamot	5	parts.
Oil of pine (*Edeltanne*)	100	"
Rectified oil of turpentine	3	"
Alcohol	1,000	"

Mix.

"HEUDUFT BOUQUET."

Extract of tonka bean	1,000	parts.
Spirit of rose, triple	500	"
Extract of rose-geranium	480	"
Extract of jasmine	500	"
Extract of orange-flower	500	"
Extract of rose	600	"

Mix.

FLOWERS OF SPRING.

Rose pomade extract	1,000	parts.
Extract of violets	1,000	"
Essence of ambergris	60	"
Spirit of rose, triple	150	"
Extract of cassic	150	"
Oil of bergamot	10	"

Mix.

ESTERHAZY BOUQUET.

Extract of vetivert	500	parts.
Extract of violet	500	"
Extract of vanilla	500	"
Extract of tonka bean	500	"
Extract of orange-flower	500	"
Spirit of rose, triple	500	"
Essence of ambergris	300	"
Sandalwood oil	40	"

Mix,

—*Perfume Gazette.*

Saffron trade, which is almost wholly confined to Spain, shows a considerable falling off during the past two years. The returns at Valencia, where the bulk of the trade is concentrated, show a decrease of about 50 per cent. in the amount sold in 1894, as compared with the previous year.

For Burns.—An ointment composed of one part of powdered nut-galls and eight parts of borated vaseline is especially recommended.

To Preserve Oil of Bitter Almonds.—Keep in bottles filled to the neck and carefully closed. The same may be said of oil of lemon.

Photographic Notes

Snap Shots and the Hand Camera.

By Gordon Parker.

All dust covered, and neglected, the implements used in early efforts mark the course of advancement in our chosen lines of work and pleasure. The advanced amateur has forgotten the hand camera of his first steps in photography, or only remembers it to remark, "I did that once," as he meets the snap-shotting fiend everywhere wandering up and down the land.

But great strides have been taken in the manufacture of hand cameras and all the accessories, and the work that is possible, and the results that are obtained by the successful snap-shotter of to-day are alike a credit to him and his instrument, and a wonder to all.

A hand camera should be a part of every amateur's outfit. Such an instrument could have been used to advantage the day of the Knights Templar parade in Boston, where a large tripod camera was useless and heavy baggage.

The qualifications necessary in the successful use of the camera are a quick eye, judgment of distance, some idea of composition, courage, and a steady nerve. Possessed of these, you can go anywhere it is right to go, and come away with good proof of your trip.

The film, a bugbear to many, is really the meat of the hand camera. You can do nothing with plates that cannot be duplicated with the film. You can carry more of them, make the changes quicker, and, consequently, get more exposures. The small universal-focus, film, and plate-carrying cameras of recent manufacture answer all requirements, and have many advantages.

The hand camera is valuable to the druggist in many ways, but lack of space will allow of the mention of but one at this time.

We dress our windows to attract attention, and, while our wares are capable of arrangements pleasing to the eye, the novelty wears away with repetition. It must have been observed how quickly pictures catch the eye and stop the feet. People are interested, study the display, smile, stop again as they return your way, and ask their friends if they have seen the pictures in your window. It is something your neighbor cannot exactly duplicate. The negatives, the prints, the display is wholly your own, and a little intelligent talk, when the customer comes in, about the pictures, and the making of pictures, interests and pleases him.

Now, the hand camera and snap shot make this nearer and easier to you than the tripod and the larger box, because a larger variety can be shown. Some of the pictures can only be obtained that way; you come nearer to the great majority of picture-takers. You can send your clerk, your family, your out-of-work friend, off for what will interest them in obtaining and profit you in having; it will make trade for you in photographic material; and it comes nearest to the desired result of all window display by attracting favorable attention to your store and your goods.—*The Spatula.*

Masticatories.

Of late years chicle and other chewing gums have come into extensive use in the United States, on the plausible argument that the saliva, so copiously secreted, is an important digestive fluid. It is said that over one million sterling is spent in New York for chewing gums. Since 1883 the imports of chicle gum (derived chiefly from *Prosopis dulcis* and other species) in Mexico and Texas have increased largely. This gum was received in the United States in 1887 to the value of £66,000. In the year 1893-94 there was an increase of 400 tons shipped from Mexico over the previous year. Chicle gum is, after vanilla, the most valuable druggist's article exported from the Republic of Mexico, now reaching in value £72,000.

Chewing gum is being vigorously warred against by some sensational writers, who assert that it is injurious to the eyesight and weakens the spine. A pretty girl masticating a wad of chewing gum is not a pretty sight, but it is ridiculous to assert that the practice is injurious. The Arabs have long chewed gum arabic. The habit of chewing "makin," or gum formed on the under surface of the juniper branches, is as general among the residents of Patagonia as the maté drinking in the adjoining republics, or the coca chewing in Peru and Bolivia. The kola nut is the masticatory of Central and Western Africa, as the vetch nut of India and the East, or chewing tobacco by the seamen in Western Europe. Chewing gum in Germany is impregnated with various antiseptics as an effective agent for throat affections. Several species of *Pistacia* furnish the gum resin of commerce, known as mastic. The women of Scio, Smyrna, and Constantinople have almost always a piece of mastic in their mouth.

The largest consumption is in the seraglios of the East, where it is universally chewed by the women, like the chicle gum in the United States, and thence derives its popular name. It is thought to sweeten the breath and excite the appetite.

Even little children chew mastic, and a mother or sister will give her own special piece to a noisy young two-year-old to keep him or her quiet. It is very odd to a European, on paying a morning visit to a Greek or Armenian beauty, to see her take a large quid, of what appears to be dentist's modelling wax, out of her handsome mouth, and deposit it by her side on the divan, so that her flow of language may not be interfered with. But little mastic is imported into Europe, and that only of the inferior kinds for making varnish.—*Phar. Journal.*

Emulsion of Creosote with Milk for Rectal Injection.

Surchet finds (*L'Union Pharm.*) that of all the methods hitherto suggested for the suspension of creosote for rectal injection, none are so satisfactory as a simple emulsion made with milk. A good sample of creosote may be mixed with fresh milk in any proportion from 1 to 10 per cent. without causing coagulation of the casein; in fact, the proportion may be raised to 25 per cent. If coagulation takes place it is due to inferior creosote containing phenols. Pure creosote mixes perfectly with milk by simply shaking, and after standing for several days the creamy layer on the surface does not show a drop or the slightest floating disc of separated creosote. The creosote emulsion may be diluted with water without separation; it keeps indefinitely. The author has kept a milk emulsion containing 5 per cent. of creosote for four months, and a diluted solution of 60 parts of this emulsion in 190 parts of water remained unaltered for a similar period. For extemporaneous preparation of the emulsion, 43 drops (1 gram) of pure beechwood creosote are counted into a quarter of a glass of milk, well stirred up, and the glass filled up with water. For hospital use a 1 in 30 solution is prepared with beechwood creosote, 16 grams, fresh milk sufficient to produce half a litre. This is to be diluted with water before injection. Guaiacol may be similarly combined. Among other substances which readily emulsify in milk the author cites eucalyptol. Not only is the milk injection useful, but the same vehicle may be employed for administering creosote in the ordinary way. The prescribed dose is stirred into a bowl of milk, which is readily taken by the patient, and is much better tolerated by the stomach than when taken in any other form.

The Cape *Agricultural Journal* is calling attention to a poison not yet fully understood. It is obtained from *Acocanthera venenata* (or *Toxicophlæa Thunbergii*), known to the colonists as Gift-boom or Poison-tree. The leaves have proved rapidly destructive to many goats, and a decoction of the bark of the root is used medicinally by the native quacks, sometimes with fatal effect. In one case, where the medicine was administered as an enema, death ensued in about two minutes. It is conjectured that the active principle is not an alkaloid, but a glucoside. No analysis of the poison has been published, nor have its reactions been studied. The arrow-poison used by the Bushmen is said to be prepared by mixing the venom of the African cobra with the gum-resin which exudes from the rhizomatous base of the "gift-boll," *Brunsvigia toxicaria*. Whether the latter ingredient has any effect beyond preventing the cobra poison from being rubbed off the point of the arrow has yet to be ascertained.—*B.C. Druggist.*

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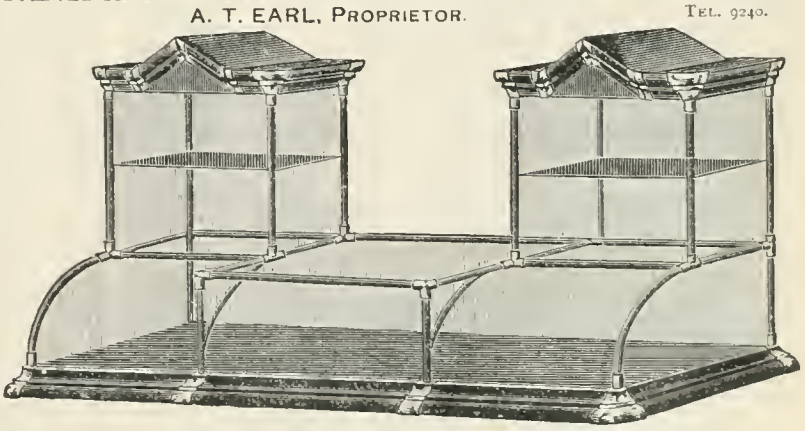

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Sterilizing Vegetable Oils.

M. Villon, in the columns of *La Revue de Chimie Industrielle*, gives an interesting account of a new method of sterilizing vegetable oils in such a way as to enable their being kept for years without alteration or deterioration. Heat destroys flavor, and so do antiseptics. The process is one of fining, a substance called algosine being used. It is derived from sea algues, is mucilaginous, and has the property of combining with alkalies and forming non-crystallizable but easily soluble salts, and strong solution of this substance is made and intimately mixed and shaken with the oils to be treated. The whole is then allowed to rest for twenty-four hours. The algosine by that time has sunk to the bottom, carrying with it all foreign matters, such as albuminoids, mucilages, fatty acids, coloring substances, etc. The result is a perfectly neutral oil, which retains all its natural characteristics of flavor, etc., but will not become rancid. A natural olive oil gave acidity 1.23 when fresh, and at the end of fifteen months, acidity 6.18; the same oil heated with algosine gave acidity 0.01, and after fifteen months, 0.03. A natural nut oil gave acidity 2.55 when fresh, and after fifteen months, 15.71; the same oil treated with algosine gave acidity 0.01, and after fifteen months, 0.02. Of course, oils thus treated have a much enhanced value, whether used for dietetic purposes, as lubricants, or for sugar refining, leather dressing, etc. *Manufacturing Chemist.*

The Candle Nut.

The *Hawaiian Gazette* refers to the candle nut, which grows plentifully in the islands. It is appreciated by the natives, but would seem to deserve the careful attention of manufacturing chemists. It seems that if the nuts are roasted in the shells, and the kernels then worked into a paste, flavored with pepper and salt, a splendid appetizer, rivalling caviare, is produced. The green husk contains an acid juice, which has a local reputation as a cure for sore throats. From the burnt shell the natives formerly obtained an indelible ink or dye, which they utilized for tattooing purposes. From the bark a gum exudes, which serves as an excellent substitute for gum arabic and gum tragacanth, and could be used for confectionery, medicated jujubes, etc. The Hawaiians use it in obstinate cases of dysentery. It will thus be seen that the nut trees are valuable, and might be worked up profitably with a little enterprise.—*Manufacturing Chemist.*

Mr. Gladstone's Message to Young Men.

Be sure that every one of you has his place and vocation on this earth, and that it rests with himself to find it. Do not believe those who too lightly say nothing succeeds like success. Effort, honest, manful, humble effort, succeeds by its reflected action, especially in youth, better than success, which, indeed, too easily and too early gained, not seldom serves, like winning the first throw of the dice, to blind and stupefy. Get knowledge—all you can. Be thorough in all you do, and remember that, though ignorance may often be innocent, pretension is always despicable. Quit you like men, be strong, and exercise your strength. Work onward and work upwards: and may the blessing of the Most High soothe your cares, clear your vision, and crown your labors with reward.

Improved Elixir Aromatic.*

By Emile Ott.

The National Formulary, as well as the United States Pharmacopœia, give formulæ for elixir aromatic in which it is necessary to have a preparation in stock that is never called for except in making elixir aromatic, as suggested in the question.

It, no doubt, would be a saving of time and trouble and obviate the necessity of having unnecessary bottles on our shelves by making the elixir direct from the oils.

Through experience I have made the preparation according to the following formula and have had satisfactory results:

Oil orange	30 drops
Oil lemon	8 drops
Oil coriander	2 drops
Oil anise	1 drop
Syrup	375 c.cm.
Alcohol	250 c.cm.
Water	Enough to make 1000 c.cm.
Precipitated phosph. of calcium	q.s.

Mix and follow directions according to the United States Pharmacopœia.

A formula that has also given satisfaction is as follows:

Oil orange	10 drops
Oil almond, bitter	1 drop
Oil clove	1 drop
Oil cinnamon	1 drop
Alcohol, Syrup ää	360 c.cm
Talcum	15 gm.
Water	Enough to made 1000 c.cm.

Mix the oils with 15 gm. of talcum, add the alcohol and syrup. Mix thoroughly, and, finally, add the water. Let it stand in a closed vessel or bottle for twenty-four hours and filter through paper.

This formula gives a preparation that can be colored with a sufficient quantity of tr. cudbear or red aniline. Solution to be used when curacao is ordered in prescription and the genuine or imported article is not specified. It is a good imitation of the imported liquor.—*American Druggist.*

*Proceedings of the Pennsylvania Pharmaceutical Association.

The School of Pharmacy of Northwestern University has 225 matriculates this fall, which is an increase of 39 above the attendance of last autumn. Of this 225, about 30 have had no previous drug store experience, 12 are women, 158 are juniors, 56 seniors, and 11 are engaged upon their second year's work for the degree of Pharmaceutical Chemist.

Business Notices.

As the design of the Canadian Druggist is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the Canadian Druggist.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the *special consideration* of the Business Notices.

Buntin, Gillies & Co. are putting on the market a new and very fine line of stationery, Roman Flox; it comes in four tints, and is of the peculiar mottled finish sometimes known as "Old Style." These are fine goods, but can be sold at popular prices. The firm will send samples on application.

The Canadian Specialty Co., who have handled Messrs. French, Cave & Co's. goods for several years now, would call special attention to French's Sweet Chimes Perfume, which has enjoyed a very large sale. They also report an increasing demand for Sinder's Chewing Gums. *Vide* their advts.

Messrs. Billings, Clapp & Co., Boston, Mass., who made such a favorable impression with their Lemonade, Orange Phosphate, and Root Beer Tablets, last summer, are now putting "Pure Slippery Elm Lozenges," in 5 lb. glass fruit tins, on the market, and, by the way orders are already commencing to come in, we bespeak a large sale for them. The Canadian Specialty Co, Toronto, Ont., are the Canadian agents.

A cleverly-executed piece of workmanship is being sent out at present by the Adams & Sons Co., 11 and 13 Jarvis street, Toronto. It is a Tutti Frutti paper doll with a moveable head and body. The firm are sending one of these and a booklet free to those who send in their name and address.

"Solazzi."

One of the most striking displays, as well as the most seasonable, that a druggist can make at this time of the year is a window full of licorice. As usual, when you display anything, you display "the best." "Solazzi" brand so well known and so universally popular, is always right, and is sure to command a sale. See what the *Lancet* says of it in advertisement on page 254 A.

Typewriters.

On the second page of cover this month, will be found the advertisement of one of the leading typewriters of the day. "Remington's" is so well known that it is only necessary to say that Spaekman & Archibald, the agents for Canada, have the latest improved machine, and also all typewriter supplies.

Fluid Beef.

At all seasons, in all climates, and on all occasions, Johnston's Fluid Beef is an especial favorite. Its purity and excellence have made it a standard article, and the druggist who does not keep full stocked with it is sure to lose trade.

Pure Chemicals.

We all recognize the fact that purity is the most essential feature in chemicals, and that a guarantee of purity is almost uniformly certain when obtained from a house of long standing acknowledged reputation. We have pleasure in calling the attention of the trade to the advertisement of Type & King, of London (Eng.), which appears on page 242 B, and who offer choice lines in chemicals, etc.

Stationery.

The large number of desirable druggists who handle stationery and stationers' sundries shows plainly the desirability of stocking with these lines, provided the goods are right, well bought, and attractive. W. J. Gage & Co. direct the attention of the trade, on page 242 B, to the lines handled by them, and solicit orders from new dealers as well as all old customers.

Trusses.

The Dorenwend Truss Co. have purchased a large stock of the Cluthe trusses, which they are willing to clear out at very largely reduced prices. Send for prices. Read their advertisement.

Optical Course.

The large number of students who have attended the courses of instruction in optics, given by Dr. W. E. Hamill, speaks volumes for the excellent course provided, and the satisfaction universally given. The next class commences Tuesday, Dec. 10th. See advertisement on second page of cover.

Catalogues.

J. W. Tufts, Boston, has published a handsome catalogue of hot soda apparatus which is a useful guide to any intending purchasers. An edition of 38,000 copies is being mailed to the trade. Any one desiring it may have a copy on application. The same firm has published an illustrated catalogue of advertising signs, banners, etc., for the soda water counter and store window.

EUDOXIN.—A new remedy brought out recently by the Chemische Fabrik Rhenania, at Aix la-Chapelle. Its composition has not yet been made public.

Human hair varies in thickness from the two hundred and fiftieth to the six hundredth part of an inch.

Books and Magazines.

OXYHÆMOGLOBIN AND ALLIED PRODUCTS. By F. E. Stewart, M.D., Ph.G., Director of Scientific Department of F. Stearns & Co., formerly Demonstrator and Lecturer on Materia Medica and Pharmacy, Jefferson Medical College, etc. A pamphlet of sixty pages, illustrated. This is No. 3 of a series of monographs from the scientific department of Frederick Stearns & Co., Detroit, Mich. It is divided into three parts: Part I. Oxyhæmoglobin Albuminate of Iron and Peptonate of Iron; Part II., the Absorption of Iron in the Animal Body; Part III., the Hæmoglobins and Related Products of the Market.

CASPARI'S PHARMACY. A Treatise on Pharmacy, for Students and Pharmacists, by Charles Caspari, jr., Ph.G., Professor of the Theory and Practice of Pharmacy in the Maryland College of Pharmacy, Baltimore, Md. In one handsome 8vo volume of 680 pages, with 288 illustrations. Cloth, $4.50. Philadelphia: Lea Brothers & Co., publishers, 1895.

The author of this work is eminently fitted for the task, and has produced a volume which from a short examination proves to be one of particular value to students of pharmacy. It consists of fifty-six chapters, divided into six parts: Part I., treating of General Pharmacy; Part II., of Practical Pharmacy; Part III., of Pharmaceutical Chemistry. The arrangement of subjects is very complete and the numerous details of every-day work are clearly described. The work is liberally illustrated, and much matter hitherto appearing in works of this kind, of no practical benefit, but which were only a useless addition of pages, has been omitted. The book will be found very valuable in pharmaceutical education, and in practical work.

A brief paragraph can hardly do justice to the interesting announcements which *The Youth's Companion* makes for the coming year. Not only will some of the most delightful story-writers contribute to the paper, but many of the most eminent statesmen, jurists, and scientists of the world. No fewer than three cabinet ministers are announced, among them being the Secretary of Agriculture, who chose for a subject "Arbor Day," the celebration of which he originated: Secretary Herbert writes on "What the President of the United States Does"; and Secretary Hoke Smith on "Our Indians."

In a fascinating group of articles, under the head of "How I Served my Apprenticeship," Frank R. Stockton tells how he became an author, General Nelson A. Miles gives reminiscences of his army days, and Andrew Carnegie recalls his earliest struggles in getting a business footing.

The publishers of *The Youth's Companion* make the following liberal offer: New subscribers who will send at once their name and address and $1.75 will receive free a handsome four-page calendar for 1896 (7 x 10 in.), lithographed in nine colors, the retail price of which is 50 cents, *The Companion* free every week until January 1, 1896, the Thanksgiving, Christmas, and New Year's double numbers free, and *The Youth's Companion* fifty-two weeks, a full year to January 1, 1897. Address, *The Youth's Companion*, 195 Columbus Avenue, Boston.

The biggest dollar's worth in Canada certainly is the *Family Herald and Weekly Star*, of Montreal. There has not been a day during the past twenty years when this could not be said; but it is doubly true now, for this magnificent paper has been enlarged to sixteen pages of eight columns each, and new features have been added, making it incomparably the biggest and best weekly in the world. Sixteen pages of eight columns each means 128 columns a week, or nearly seven thousand columns a year—equal to

The size of the Crystals used in

"Surf" Sea Salt

Is one of the advantages it has over all other brands. It dissolves in one-quarter the time any other brand on the market will, and is more convenient to use on that account.

You can order from any wholesale house. Put up in 5 lb. packages, 1 doz. per case. Price $1.00; 12 cases, $11.00.

TORONTO SALT WORKS, Toronto, Importers.

A Few Reasons WHY

DRUGGISTS SHOULD HANDLE

Dr. Story's 5-Minute Headache Cure:

First.—Merck says the formula cannot be improved.

Second.—10 cents is the popular price.

Third.—Out of 48 dailies, Ontario, we have a six-inch display and readers in thirty; will have all in 60 days.

Fourth.—We protect the druggist in that we never sell or allow our goods sold to Department, Dry-goods, or Grocery stores.

Fifth.—The immense profit.

KINDLY SEND AN ORDER TO

J. A. Kennedy & Co., London,

for 1 Gross of Dr. Story's 5-minute headache cure, at $5.50 a gross, or 50c. a dozen.

Get ready for the boom. Don't wait, as this journal says, till you have a dozen calls, and your neighbor gets the benefit of the advertising.

STORY MEDICINE CO.
Cleveland, Ohio.

- - - DRUGGISTS - - -

we desire to show you

The Handsomest Line of Christmas Perfumes

The Leading Line of the World
Without a Rival in the Field

Send us your name and address and we will arrange to see you. Agents now at work in all portions of the United States and Canada.

Up-to-date Ideas in Perfumes Pay

SEELY *The American Perfumer* • • • *Detroit, Mich.* *Windsor, Ont.*

NEW CATALOGUE MAILED ON APPLICATION.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to November 10th, 1895.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

ALCOHOL, gal	$4 37	$4 65
Methyl	1 90	2 00
ALLSPICE, lb	13	15
Powdered, lb	15	17
ALOIN, oz	40	45
ANODYNE, Hoffman's bot., lbs	50	55
ARROWROOT, Bermuda, lb	50	55
St. Vincent, lb	15	18
BALSAM, Fir, lb	40	45
Copaiba, lb	65	75
Peru, lb	3 75	4 00
Tolu, can or less, lb	65	75
BARK, Barberry, lb	22	25
Bayberry, lb	15	18
Buckthorn, lb	15	17
Canella, lb	15	17
Cascara, Sagrada	25	30
Cascarilla, select, lb	18	20
Cassia, in mats, lb	18	20
Cinchona, red, lb	60	65
Powdered, lb	65	70
Yellow, lb	35	40
Pale, lb	40	45
Elm, selected, lb	18	20
Ground, lb	17	20
Powdered, lb	20	28
Hemlock, crushed, lb	18	20
Oak, white, crushed lb	15	17
Orange peel, bitter, lb	15	16
Prickly ash, lb	35	40
Sassafras, lb	15	16
Soap (quillaya), lb	13	15
Wild cherry, lb	13	15
BEANS, Calabar, lb	45	50
Tonka, lb	1 50	2 75
Vanilla, lb	6 00	8 50
BERRIES, Cubeb, sifted, lb	30	35
powdered, lb	35	40
Juniper, lb	7	10
Ground, lb	12	14
Prickly ash, lb	40	45
BUDS, Balm of Gilead, lb	55	60
Cassia, lb	25	30
BUTTER, Cacao, lb	75	80
CAMPHOR, lb	80	85
CANTHARIDES, Russian, lb	1 40	1 50
Powdered, lb	1 50	1 60
CAPSICUM, lb	25	30
Powdered, lb	$ 30	35
CARBON, Bisulphide, lb	17	18
CARMINE, No. 40, oz	40	50
CASTOR, Fibre, lb	20 00	20 00
CHALK, French, powdered, lb	10	12
Precip., see Calcium, lb	10	12
Prepared, lb	5	6
CHARCOAL, Animal, powd., lb	4	5
Willow, powdered, lb	20	25
CLOVE, lb	16	17
Powdered, lb	17	18
COCHINEAL, S.G., lb	40	45
COLLODION, lb	75	80
Cantharidal, lb	2 50	2 75
CONFECTION, Senna, lb	40	45
Creosote, Wood, lb	2 00	2 50
CUTTLEFISH BONE, lb	25	30
DEXTRINE, lb	10	12
DOVER'S POWDER, lb	1 50	1 60
ERGOT, Spanish, lb	75	80
Powdered, lb	90	1 00
Ergotin, Keith's, oz	2 00	2 10
EXTRACT, Logwood, bulk, lb	13	14
Pounds, lb	14	17
FLOWERS, Arnica, lb	15	20
Calendula, lb	55	60
Chamomile, Roman, lb	30	35
German, lb	40	45
Elder, lb	20	22
Lavender, lb	12	15
Rose, red, French, lb	1 60	2 00
Rosemary, lb	25	30
Saffron, American, lb	65	70
Spanish, Val'a, oz	1 00	1 25
GELATINE, Cooper's, lb	75	80
French, white, lb	35	40
GLYCERINE, lb	18	20
GUARANA	200	2 25
Powdered, lb	2 25	2 50
GUM ALOES, Cape, lb	18	20
Barbadoes, lb	30	50
Socotrine, lb	65	70
Asafœtida, lb	40	45
Arabic, 1st, lb	65	70
Powdered, lb	75	85
Sifted sorts, lb	40	45
Sorts, lb	25	30
Benzoin, lb	50	1 00
Catechu, Black, lb	9	20
Gamboge, powdered, lb	1 20	1 25
Guaiac, lb	50	1 00
Powdered, lb	90	95
Kino, true, lb	2 00	2 25
Myrrh, lb	$ 45	$ 48
Powdered, lb	55	60
Opium, lb	3 60	3 75
Powdered, lb	5 50	5 75
Scammony, pure Resin, lb	12 80	13 00
Shellac, lb	45	48
Bleached, lb	45	50
Spruce, true, lb	30	35
Tragacanth, flake, 1st, lb	75	80
Powdered, lb	1 00	1 10
Sorts, lb	45	65
Thus, lb	8	10
HERB, Althea, lb	27	30
Bitterwort, lb	36	40
Burdock, lb	16	18
Boneset, ozs, lb	15	17
Catnip, ozs, lb	17	20
Chiretta, lb	25	30
Coltsfoot, lb	20	38
Feverfew, ozs, lb	53	55
Grindelia robusta, lb	45	50
Horehound, ozs., lb	18	20
Jaborandi, lb	45	50
Lemon Balm, lb	38	40
Liverwort, German, lb	38	40
Lobelia, ozs, lb	15	20
Motherwort, ozs., lb	20	22
Mullein, German, lb	17	20
Pennyroyal, ozs., lb	18	20
Peppermint, ozs., lb	21	22
Rue, ozs., lb	30	35
Sage, ozs., lb	18	20
Spearmint, lb	21	25
Thyme, ozs., lb	18	20
Tansy, ozs., lb	15	18
Wormwood, oz	20	22
Yerba Santa, lb	38	44
HONEY, lb	13	15
HOPS, fresh, lb	20	25
INDIGO, Madras, lb	75	80
INSECT POWDER, lb	25	28
ISINGLASS, Brazil, lb	2 00	2 10
Russian, true, lb	6 00	6 50
LEAF, Aconite, lb	25	30
Bay, lb	18	20
Belladonna, lb	25	30
Buchu, long, lb	50	55
Short, lb	20	22
Coca, lb	35	40
Digitalis, lb	15	20
Eucalyptus, lb	18	20
Hyoscyamus	20	25
Matico, lb	70	75

Senna, Alexandria, lb	$ 25	$ 30
Tinnevelly, lb	15	25
Stramonium, lb	20	25
Uva Ursi, lb	15	18
LEECHES, Swedish, doz	1 00	1 10
LICORICE, Solazzi	45	50
Pignatelli	35	40
Grasso	30	35
V & S—Sticks, 6 to 1 lb., per lb.	27	30
" Purity, 100 sticks in box	75	75
" Purity, 200 sticks in box	1 50	1 50
" Acme Pellets, 5 lb. tins	2 00	2 00
" Lozenges, 5 lb. tins	2 00	2 00
" Tar, Licorice, and Tolu, 5 lb. tins	2 00	2 00
LUPULIN, oz	30	35
LYCOPODIUM, lb	70	80
MACE, lb	1 20	1 25
MANNA, lb	1 60	1 75
Moss, Iceland, lb	9	10
Irish, lb	9	10
MUSK, Tonquin, oz	46 00	50 00
NUTGALLS, lb	21	25
Powdered, lb	25	30
NUTMEGS, lb	1 00	1 10
NUX VOMICA, lb	10	12
Powdered, lb	25	27
OAKUM, lb	12	15
OINTMENT, Merc., lb. ½ and ½	70	75
Citrine, lb	45	50
PARALDEHYDE, oz	20	22
PEPPER, black, lb	12	13
Powdered, lb	15	16
PITCH, black, lb	3	4
Bergundy, true, lb	10	12
PLASTER, Calcined, bbl. cash	2 25	3 25
Adhesive, yd	12	13
Belladonna, lb	65	70
Galbanum Comp., lb	80	85
Lead, lb	25	30
POPPY HEADS, per 100	1 00	1 10
ROSIN, Common, lb	2½	3
White, lb	3½	4
RESORCIN, white, oz	25	30
ROCHELLE SALT, lb	25	28
ROOT, Aconite, lb	22	25
Althea, cut, lb	30	35
Belladonna, lb	25	30
Blood, lb	15	16
Bitter, lb	27	30
Blackberry, lb	15	18
Burdock, crushed, lb	18	20
Calamus, sliced, white, lb	20	25
Canada Snake, lb	30	35
Cohosh, black, lb	15	20
Colchicum, lb	40	45
Columbo, lb	20	22
Powdered, lb	25	30
Coltsfoot, lb	38	40
Comfrey, crushed, lb	20	25
Curcuma, powdered, lb	13	14
Dandelion, lb	15	18
Elecampane, lb	15	20
Galangal, lb	15	18
Gelsemium, lb	22	25
Gentian or Genitan, lb	9	10
Ground, lb	10	12
Powdered, lb	13	15
Ginger, African, lb	18	20
Po., lb	20	22
Jamaica, blchd., lb	27	30
Po., lb	30	35
Ginseng, lb	4 50	4 75
Golden Seal, lb	75	80
Gold Thread, lb	90	95
Hellebore, white, powd., lb	12	15
Indian Hemp	18	20
Ipecac, lb	1 75	2 00
Powdered, lb	2 00	2 25
Jalap, lb	55	60
Powdered, lb	60	65
Kava Kava, lb	40	90
Licorice, lb	12	15
Powdered, lb	13	15
Mandrake, lb	13	18
Masterwort, lb	16	40
Orris, Florentine, lb	30	35
Powdered, lb	40	45
Pareira Brava, true, lb	40	45
Pink, lb	40	45
Parsley, lb	30	35
Pleurisy, lb	20	25
Poke, lb	15	18
Queen of the Meadow, lb	$ 18	$ 20
Rhatany, lb	20	30
Rhubarb, lb	75	2 50
Sarsaparilla, Hond, lb	40	45
Cut, lb	50	55
Senega, lb	55	65
Squill, lb	13	15
Stillingia, lb	22	25
Powdered, lb	25	27
Unicorn, lb	38	40
Valerian, English, lb. true	20	25
Virginia, Snake, lb	40	45
Yellow Dock, lb	15	18
RUM, Bay, gal	2 50	2 75
Essence, lb	3 00	3 25
SACCHARIN, oz	1 25	1 50
SEED, Anise, Italian, sifted, lb	13	15
Star, lb	35	40
Burdock, lb	30	35
Canary, bag or less, lb	5	6
Caraway, lb	10	13
Cardamom, lb	1 25	1 50
Celery	25	30
Colchicum	50	60
Coriander, lb	10	12
Cumin, lb	15	20
Fennel, lb	15	17
Fenugreek, powdered, lb	7	9
Flax, cleaned, lb	3½	4
Ground, lb	4	5
Hemp, lb	5	6
Mustard, white, lb	11	12
Powdered, lb	15	20
Pumpkin	25	30
Quince, lb	65	70
Rape, lb	8	9
Strophanthus, oz	50	55
Worm, lb	22	25
SEIDLITZ MIXTURE, lb	25	30
SOAP, Castile, Mottled, pure, lb	10	12
White, Conti's, lb	15	16
Powdered, lb	25	35
Green (Sapo Viridis), lb	15	25
SPERMACETI, lb	55	60
TURPENTINE, Chian, oz	75	80
Venice, lb	10	12
WAX, White, lb	50	75
Yellow	40	45
WOOD, Guaiac, rasped	5	6
Quassia chips, lb	10	12
Red Saunders, ground, lb	5	6
Santal, ground, lb	5	6

CHEMICALS.

ACID, Acetic, lb	12	13
Glacial, lb	45	50
Benzoic, English, oz	20	25
German, oz	10	12
Boracic, lb	13	14
Carbolic Crystals, lb	25	30
Calvert's No. 1, lb	2 10	2 15
No. 2, lb	1 35	1 40
Citric, lb	45	50
Gallic, oz	10	12
Hydrobromic, diluted, lb	30	35
Hydrocyanic, diluted, oz. bottles doz	1 50	1 60
Lactic, concentrated, oz	22	25
Muriatic, lb	3	5
Chem, pure, lb	18	20
Nitric, lb	10½	13
Chem. pure, lb	25	30
Oleic, purified, lb	75	80
Oxalic, lb	12	13
Phosphoric, glacial, lb	1 00	1 10
Dilute, lb	13	17
Pyrogallic, oz	35	38
Salicylic, white, lb	1 00	1 10
Sulphuric, carboy, lb	2½	2¾
Bottles, lb	5	6
Chem. pure, lb	18	20
Tannic, lb	80	85
Tartaric, powdered, lb	35	38
ACETANILID, lb	80	85
ACONITINE, grain	4	5
ALUM, cryst., lb	1¾	3
Powdered, lb	3	4
AMMONIA, Liquor, lb., .880	10	12
AMMONIUM, Bromide, lb	80	85
Carbonate, lb	14	15
Iodide, oz	35	40
Nitrate, crystals, lb	40	45
Muriate, lb	12	16
Valerianate, oz	$ 55	$ 60
AMYL, Nitrite, oz	16	18
ANTINERVIN, oz	85	00
ANTIKAMNIA	1 25	1 30
ANTIPYRIN, oz	1 10	1 20
ARISTOL, oz	1 85	2 00
ARSENIC, Donovan's sol., lb	25	30
Fowler's sol., lb	10	13
Iodide, oz	50	55
White, lb	6	7
ATROPINE, Sulp. in ⅛ ozs. 80c., oz	6 00	6 25
BISMUTH, Ammonia-citrate, oz	35	40
Iodide, oz	50	55
Salicylate, oz	20	25
Subcarbonate, lb	1 75	2 00
Subnitrate, lb	1 40	1 60
BORAX, lb	7	8
Powdered, lb	8	9
BROMINE, oz	8	13
CADMIUM, Bromide, oz	20	25
Iodide, oz	45	50
CAFFEINE, oz	60	65
Citrate, oz	60	65
CALCIUM, Hypophosphite, lb	1 50	1 60
Iodide, oz	95	1 00
Phosphate, precip., lb	35	38
Sulphide, oz	5	6
CERIUM, Oxalate, oz	10	12
CHINOIDINE, oz	15	18
CHLORAL, Hydrate, lb	1 25	1 30
Croton, oz	75	80
CHLOROFORM, lb	60	1 90
CINCHONINE, sulphate, oz	25	30
CINCHONIDINE, Sulph., oz	15	20
COCAINE, Mur., oz	6 00	7 00
CODEIA, ⅛ oz	70	75
COLLODION, lb	65	70
COPPER, Sulph., (Blue Vitriol) lb.	6	7
Iodide, oz	65	70
COPPERAS, lb	1	3
DIURETIN, oz	1 60	1 65
ETHER, Acetic, lb	75	80
Sulphuric, lb	40	50
EXALGINE, oz	1 00	1 10
HYOSCYAMINE, Sulp., crystals, gr.	25	30
IODINE, lb	4 75	5 50
IODOFORM, lb	6 00	7 00
IODOL, oz	1 40	1 50
IRON, by Hydrogen	80	85
Carbonate, Precip., lb	15	16
Sacch., lb	30	35
Chloride, lb	45	55
Sol., lb	13	16
Citrate, U.S.P., lb	90	1 00
And Ammon., lb	70	75
And Quinine, lb	1 50	3 00
Quin. and Stry., oz	18	30
And Strychnine, oz	13	15
Dialyzed, Solution, lb	50	55
Ferrocyanide, lb	55	60
Hypophosphites, oz	25	30
Iodide, oz	40	45
Syrup, lb	40	45
Lactate, oz	5	6
Pernitrate, solution, lb	15	16
Phosphate scales, lb	1 25	1 30
Sulphate, pure, lb	7	9
Exsiccated, lb	8	10
And Potass. Tartrate, lb	80	85
And Ammon Tartrate, lb	80	85
LEAD, Acetate, white, lb	13	15
Carbonate, lb	7	8
Iodide, oz	35	40
Red, lb	7	9
LIME, Chlorinated, bulk, lb	4	5
In pakages, lb	6	7
LITHIUM, Bromide, oz	30	35
Carbonate, oz	30	35
Citrate, oz	25	30
Iodide, oz	50	55
Salic ate, oz	35	40
MAGNESIUM, Calc., lb	55	60
Carbonate, lb	18	20
Citrate, gran., lb	35	40
Sulph. (Epsom salt), lb	1¾	3
MANGANESE, Black Oxide, lb	5	7
MENTHOL, oz	55	66
MERCURY, lb	75	80
Ammon (White Precip.)	1 25	1 30
Chloride, Corrosive, lb	1 00	1 10
Calomel, lb	1 00	1 10
With Chalk, lb	60	65

the contents of about one hundred large volumes, and every column is jammed full, from the first line to the last, with reading that is intensely interesting and valuable. Farmers, dairymen, and stock growers, for instance, who read it, say that the *Family Herald* of Montreal repays its cost one hundredfold every year; the housewives say the same thing, and so on with all its readers. To take it once is to take it always. Everybody should see the *Family Herald* in its enlarged form; it is a credit to the country, and Canadians should be proud of it.

Every subscriber to the *Family Herald* is insured for five hundred dollars against railway accidents free of cost.

We understand that the *Family Herald and Weekly Star* has a sweetly beautiful picture for yearly subscribers, entitled, "Little Queenie." Those who have seen it say it is a beauty.

The Cotton States and International Exposition at Atlanta, which takes rank among the most brilliant fairs ever organized on the American continent, comes in for conspicuous attention, both pictorial and literary, in the November number of *Frank Leslie's Popular Monthly*. The leading article on this subject is from the authoritative pen of Walter G. Cooper, the energetic chief of the Department of Publicity and Promotion. James L. Ford, the now celebrated author of "The Literary Shop" and "Hypnotic Tales," contributes a delicious example of his satirical humor in a paper upon "Our Exotic Nobility," which is charmingly illustrated by Warren B. Davis. Mrs. Leicester-Addis discusses the traditions and customs of Allhallowtide. The frontispiece is an admirable reproduction in water colors of a characteristic "New England Thanksgiving Dinner." Altogether, the improved *Frank Leslie's Popular Monthly* is a brilliant success.

It is announced that ex-President Benjamin Harrison is engaged in writing a series of magazine articles for *The Ladies' Home Journal*, in which periodical they will begin in the December number. The series will be called "This Country of Ours," and will consist of ten articles and probably more. The papers are being written by General Harrison especially for women, to meet a growing, widespread desire on their part to intelligently understand the workings of the government and the great national questions. It will be the aim of the articles to explain, in the clear and concise style for which the ex-President is famous, just what the United States Government means; the origin and meaning of the constitution; how laws are enacted and enforced: what the powers of the President and other officials are: what the judiciary system means; how the foreign relations are brought about and their meaning; how Congress and the Senate legislate, in fact, a complete explanation of the government told in a popular way. General Harrison writes the articles from the standpoint of a citizen who understands his subject. They have no bearing on politics whatever. While directly intended for women, the articles will naturally have a much broader scope and likewise interest men, and especially young men.

Young people will find much to interest and please them in the November number of *Frank Leslie's Pleasant Hours for Boys and Girls*. There is a capital short story by Oliver Optic: an article giving some excellent hints for boys on buying and using a gun, by Wilf P. Pond: an interesting description of an incident of the war, by J. Frederick Thorne; a valuable paper on "Children in Japan," by A. B. de Guerville: an illustrated poem about an arithmetical puzzle, by Clifford Howard: a story for very little folks; a description of a new and exciting game for boys: several illustrated jingles, and a number of puzzles; while the two serial stories by Edward S. Ellis and Jeannette H. Walworth continue with increasing interest. A unique feature of this magazine, which starts in the November number, is the editor's talks about the new books for boys and girls, in which he points out what is best in the late juvenile publications. The number is splendidly illustrated.

The November number of the *Delineator* is called the thanksgiving number, and illustrates a bewildering wealth of autumn and winter fashions, the collection of stylish and becoming garments being particularly complete. Mrs. Roger A. Pryor furnishes a gossipy and circumstantial account of dinner giving in society, and Juliet Corson writes interestingly on domestic service as an employment. The best kind of a thanksgiving dinner is described, with recipes for all its dishes; and a timely article on carving tells just how to gracefully dismember the noble bird that occupies the place of honor in the menu given. Helen Marshall North details the varied industrial instruction to be had at Pratt Institute, Brooklyn. Both children and adults will be delighted to learn just how the crepe paper brownies are made, and with the pictures of these amusing little figures. Address all communications to the Delineator Publishing Co., of Toronto, Limited, 33 Richmond street west, Toronto, Ont.

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Edited by ALBERT SHAW.

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Nitrate, gran, lb	8	10
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Prussiate, Red, lb	50	55
Yellow, lb	32	35
And Sod. Tartrate, lb	25	30
Sulphuret, lb	25	30
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Quinine, Sulph, bulk	32	35
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Santonin, oz	20	22
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Sodium, Acetate, lb	30	35
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Strychnine, crystals, oz	80	85
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Sulphur, Flowers of, lb	2½	4
Pure precipitated, lb	13	20
Tartar Emetic, lb	50	55
Thymol (Thymic acid), oz	55	60
Veratrine, oz	2 00	2 10
Zinc, Acetate, lb	70	75
Carbonate lb	25	30
Chloride, granular, oz	13	15
Iodide, oz	60	65
Oxide, lb	13	60
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Cubeb, lb	2 50	3 00
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Erigeron, oz	20	25
Eucalyptus, lb	1 50	1 75
Fennel, lb	1 60	1 75
Geranium, oz	$1 75	$1 80
Rose, lb	3 20	3 50
Juniper berries (English), lb	4 50	5 00
Wood, lb	70	75
Lavender, Chiris. Fleur, lb	3 00	3 50
Garden, lb	1 50	1 75
Lemon, lb	1 75	1 80
Lemongrass, lb	1 50	1 60
Mustard, Essential, oz	60	65
Neroli, oz	4 25	4 50
Orange, lb	2 75	3 00
Sweet, lb	2 75	3 00
Origanum, lb	65	70
Patchouli, oz	80	85
Pennyroyal, lb	2 50	2 75
Peppermint, lb	3 60	3 75
Pimento, lb	2 60	2 75
Rhodium, oz	80	85
Rose, oz	7 50	11 00
Rosemary, lb	70	75
Rue, oz	25	30
Sandalwood, lb	5 50	7 50
Sassafras, lb	75	80
Savin, lb	1 60	1 75
Spearmint, lb	3 75	4 00
Spruce, lb	65	70
Tansy, lb	4 25	4 50
Thyme, white, lb	1 80	1 90
Wintergreen, lb	2 75	3 00
Wormseed, lb	3 50	3 75
Wormwood, lb	4 25	4 50
FIXED OILS.		
Castor, lb	8	10
Cod Liver, N.F., gal	1 75	2 00
Norwegian, gal	2 75	3 00
Cottonseed, gal	1 10	1 20
Lard, gal	90	1 00
Linseed, boiled, gal	62	65
Raw, gal	60	62
Neatsfoot, gal	1 20	1 30
Olive, gal	1 20	1 25
Salad, gal	2 50	2 60
Palm, lb	12	13
Sperm, gal	1 35	1 40
Turpentine, gal	60	65

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Drug Reports.

Canada.

Business during the past month has been fairly active, showing an improvement on the previous month, and a confident feeling generally prevails. Reports now being received from all the provinces indicate an increased trade, as statistics show good crops and more money in circulation.

There are few changes to note, prices on the whole being firm, and where there is a change it is an advance.

Glycerine is still advancing.

Tartaric acid still moving upwards.

Citric acid also higher.

Quinine is firm without change.

Opium still held for speculation; no advance.

Linseed oil lower; very large crop of seed.

Balsam Tolu advanced.

Gums, Kino and Guaiacum higher.

England.

London, October 26, 1895.

The tendency of the market during the month has been upward. Tartaric and citric acids have shown marked advance, but the latter can hardly be maintained, as lemon juice is lower. Mercurials have advanced owing to the rise in quicksilver. Japanese oil of peppermint has risen, and Star anise oil is dearer. Norwegian cod-liver oil bids fair to reach a famine figure, but the supply of Newfoundland is good and price unchanged. Hyposulphite of soda and tolu dearer. Vanillas have had a sharp advance. Cream of tartar, borax, and ergot easier. Both home and export fall trade is reported good, and the buoyant state of the market generally likely to last over Christmas.

To disguise the bitter taste of quinine add the prescribed dose to a cup of coffee slightly fortified with a little cognac or any other alcoholic beverage.

Synthetic Indigo.

A patent has been granted in Germany for a process which, it is claimed, solves the problem of producing indigo synthetically. Methylated anthranilic acid (a product of coal-tar distillation) is fused together, under exclusion of air, with a caustic alkali, the resultant compound is dissolved in water and the solution exposed to the air, when the blue dye, identical chemically and physically with natural indigo, is produced.

Japanese Dressing for Wounds.

During the late war Japanese surgeons are said to have employed as a dressing for wounds the ash of rice straw. This was freely applied after the wound had been cleaned, and sublimate gauze or linen was then superposed, and held in position by a bandage. The ash is said to act as a perfect antiseptic, its properties in that respect being attributed to the presence of potassium carbonate, and it is certainly the cheapest dressing on record.

Canadian Druggist

Devoted to the interests of the General Drug Trade and to the Advancement of Pharmacy.

VOL. VII. TORONTO, DECEMBER, 1895. No. 12

Canadian Druggist

WILLIAM J. DYAS, PUBLISHER.

Subscription $1 per year in advance.
Advertising rates on application.

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New advertisements or changes to be addressed

Canadian Druggist,
20 Bay St., TORONTO, ONT.

EUROPEAN AGENCIES:
ENGLAND: Aldermary House, 60 Watling Street, London, E. C.
FRANCE: 5 Rue de la Bourse, Paris.

CONTENTS.

What will the Result Be?
Study this out.
Points in Dispensing.
Hints in Stock-taking.
TRADE NOTES.
Montreal Notes.
Prince Edward Island.
British Columbia Notes.
Pharmaceutical Testing.
Ammonia Present in Corks.
Pharmacy in England.
Treatment of Customers.
CORRESPONDENCE.
Pharmacy in Mexico.
The Last Straw.
Ontario Society of Retail Druggists.
Stearates.
EDITORIAL.
Impressions of the Meeting of the O.S. of R.D.
The New President.
Dalmation Insect Flowers.
Practical Formulas.
Don'ts for the Pharmacist.
Of what Use is Botany to the Pharmacist?
Composition of Microbes.
The Best and Most Lasting Label Paste.
Notes for Bicyclists.
Substitutes for India Rubber.
FORMULARY.
Bacteriological Studies for Belgian Pharmacists.
PHOTOGRAPHIC NOTES.
Thought Photography.
Test for Chlorates.
Practical Hints on Advertising.
BUSINESS NOTICES.
Professor Winchell's Paste.
BOOKS AND MAGAZINES.
DRUG REPORTS.
Lead Ointment-without Fat.

ADULTERATED OIL OF ROSE.—According to reports from authentic sources, the proportion of pure oil of rose which reaches European markets is very small. Adulteration with oil of rose geranium continues to be of frequent occurrence.

What Will the Result Be?

The activity manifested by the provisional executive appointed at the late meeting of druggists in Toronto has aroused in quite a number of pessimistic druggists the feeling that there may possibly be something in this thing after all, and several of them, we understand, are seriously contemplating throwing in their conservative influence to make the thing go. The conservative druggist is the man who always asks, "What will the result be? and who always stands aside until he sees the result coming, when he steps in as a deliverer and absorbs personally as much credit as possible for what is achieved. There are a number of such druggists who will read this article; their selfishness is the dominating trait in their nature; they hate to part with a dollar to aid anything projected for the general benefit of the trade for fear that some specific individual should get a portion of it, or that an executive committee should squander it unnecessarily. Such men are always the ones to cry out for others to save them. They are void of sufficient hope to enable them to encourage anything, yet are possibly more to be pitied than blamed for the inherent disposition which possesses them. Assuming, however, that the question as to the probable result is of very considerable interest to every druggist, whether a pessimist or an optimist, we have given it some attention, and feel no hesitation in stating that we have arrived at the conclusion that there is both a possibility and a probability of winning. The retail drug trade is in earnest this time. The members of it are fully alive to the fact that if the present effort fails the business of the retail druggist is bound to sink still lower than it has been, as each failure makes matters worse. The conditions bound to prevail in future are either going to be based upon the principle of mutual support or are going to be established upon the theory of the "survival of the fittest." The latter condition would be the natural sequence of letting things drift, and is a condition which cannot prevail as long as druggists are in earnest about the movement now on foot. That they are in earnest we do not doubt, and that they will remain so we earnestly hope. The druggists can win if they will do so. They are cemented together by mutual ties of business interest. They have all emanated from one school of training. Their cohesion is natural for just such reasons, and those who deliberately antagonize the entire body are in serious danger of feeling the influence which can be unitedly wielded by eight hundred and fifty druggists. Opposition binds them together, and as there is likely to be some of that for considerable time to come, we can entertain fair hopes of continuous and prolonged effort. That they intend to win, we believe; that they can win we also believe; and that they will evolve a condition of reputable maintenance for the drug trade of Ontario we have every reason to expect.

Study This Out.

On Dec. 3rd, immediately preceding the meeting of druggists to be held in Toronto the following day, there appeared in the *Mail-Empire*, in the *Globe*, the *News*, and *Star*, the form of advertisement given below. Reading, apparently, as a news item gathered by the reporters for the respective papers, it would at first blush seem to be directed by the firm of McKendry & Co. for business purposes, and in such a manner as to place them in competitive opposition to the retail drug trade in selling goods manufactured by Messrs. Edmanson & Bates; while, at the same time, the firm of Edmanson & Bates would appear to be over-zealous in acting on behalf of the retail and wholesale drug trade.

First impressions are not always lasting, however, for in this case circumstances appear to divert them. The item was doubtless paid for, as it appeared in

morning and evening editions of the papers named, in all cases practically alike, and, singularly enough, in the form of advertisement frequently used by Edmanson & Bates and rarely or never used by McKendry & Co. The date in question forms one of the regular days, we understand, for the insertion of Edmanson & Bates' advertisements, yet in no other part of these papers we noticed their usual advertisement. The time is peculiarly appropriate for impressing upon the retail druggists that Edmanson & Bates are their staunch friends and supporters, and it has apparently been made good use of.

Assuming that McKendry & Co. were likely to receive benefit from such a form of advertisement, and that they were alone responsible for the insertion and payment for it, we are at a loss to find them placing it in papers in which they do not regularly advertise and, at the same time, neglecting their special paper, *The Evening Telegram*, which goes into the majority of city homes, where it would be most likely to prove productive of the results they would desire.

There is such a form of advertising as "mutual abuse advertising," usually paid for by both parties interested; and while we are loth to charge the patent medicine firm with guilty knowledge, connivance or responsibility, we must say that, to us at least, the circumstances surrounding this are disagreeably suspicious. One dollar and ten cents paid for the issuance of a nominal writ would be, in our opinion, a cheap and satisfactory method of securing notoriety for both, and if it did not give rise to suspicion would be profitable as well. Read the advertisement carefully and find out who should pay for it and who should believe it. If our suspicions are wrong we regret having to entertain them, but if they are well founded, the matter is one which would completely shatter our faith in the unanimous support of the patent medicine manufacturers.

Here is the item: Toronto druggists have been feeling very sore for some time at the manner in which the large departmental stores are cutting prices. Refusals to sell them goods proved ineffectual, because smaller dealers were constantly failing, and the big dealers could pick up their stocks and sell them at less than wholesale.

But still the patent medicine manufacturers claimed the right to fix the retail prices, and to test this right Edmanson Bates & Co., the Canadian agents for Dr' Chase's remedies, have taken upon themselves to apply to the courts for an injunction against McKendry & Co.

Irving and Jameson, solicitors, on behalf of Edmanson, Bates & Co., 45 Lombard street, Toronto, this morning served notice of action on McKendry & Co., departmental dealers, Yonge street, threatening to apply to the courts for an injunction restraining the latter from selling their goods below cost. The plaintiffs allege that McKendry & Co. have been selling Dr. Chase's remedies retail at prices less than wholesale.

The plaintiffs say that they will certainly test this matter in the courts if McKendry & Co continue to cut their prices in this way. They say they intend to see the matter through, and have the rights of the manufacturers to fix prices determined. Chase's Pills must not and will not be sold at nine cents a box, as advertised, when the regular retail price is 25 cents. That is their position.

But Mr. McKendry, who has one of the leading departmental stores in Toronto, thinks differently. To a *Mail* and *Empire* reporter he was very outspoken. "We have been notified by Edmanson, Bates & Co. that they wanted us to sell Chase's Kidney-Liver Pills at fixed prices. We don't propose to be dictated to by this firm or any other firm as to what price we shall ask for our goods.

"I presume it is their business to sell at whatever price they please to the wholesale druggists, and it is ours to sell to our customers at whatever price we please.

"If manufacturers are allowed to dictate prices to us, we might as well close up shop, because there are many lines of goods to-day selling at less money than it costs to produce them.

"There are wheels within wheels in commerce, and without letting you into the full secret, we hereby say that we intend to do as we please in regard to prices.

"We are constantly buying stocks of merchandise from one cause and another for much less than it costs to produce them. Would it not be ridiculous to suppose that goods bought in this way must be sold to suit the original manufacturers? They must think we are crazy."

Points in Dispensing.

At a recent meeting of the Liverpool Pharmaceutical Students' Society a member said he had frequently had to send out a mixture of equal parts of cod liver oil and Parrish's syrup, and as it was anything but a sightly compound when finished, he tried to make an emulsion, using mucilage of acacia or tragacanth. That answered fairly well, but the dose was too much increased in bulk, so he had to try and devise an alternative, and found this in tincture of quillaja. If thirty minims of tincture of quillaja be used for each ounce of oil in the mixture, a perfect emulsion is at once formed, and as elegant a preparation as is possible with such a combination of ingredients is the result.

As an instance of the peculiar way in which the directions of some prescriptions were drawn up, the following was placed before the meeting:

Kali iodid.....5iij
1 to 5.

Directions.—Six drops to be taken in half a wineglassful of water three times a day, five or ten minutes to half an hour before meals, or five or ten minutes to an hour or two after meals.

The next communication was in relation to a rather nice point in dispensing.

A member had dispensed a mixture of quinine, potassium, iodide, and hydrobromic acid, made up with peppermint water, and was surprised to see after a short time unmistakable evidence of iodine being liberated from the iodide. The iodide on examination proved to be free from iodate, and the other ingredients pure also, except the peppermint water, which in the stock bottle had a distinct odor of nitrous ether. This was finally explained by a mixture containing spirit of nitre having been made up direct by pouring the peppermint water into the bottle in which the mixture was dispensed, and the volatile nitrous ether passing into the peppermint water stock bottle by displacement had thus contaminated the whole lot. This peppermint water readily liberated iodine from an acidulated solution of an iodide. The president said he had had a similar experience with distilled water spoilt with elixir phosphori, and H. Wyatt, jr., gave an instance in which distilled water had become contaminated with ammonia. These distilled waters should always be poured into a measure before filling up dispensing phials with them, or bottles fitted with glass taps should be used, and then the contents can be run off without any risk.—*American Druggist.*

Hints in Stock-taking.

The contents of shelf bottles for inventory purposes may be quickly and approximately measured by comparison with a rule or gauge attached to a shelf in a perpendicular position and graduated with a scale of inches and parts of inches. The first step in the application of this plan is to find the exact amount of tincture or other liquid in each inch of height as contained in a pint shelf bottle, and then measure up all the pint bottles. The same process applies to the quarts, half-gallon and gallon bottles. Another time-saving expedient may be used in calculating, say, the number of pills in a bottle. For instance, a bottle contained 1,000 pills, how many does it now contain? Carefully weigh 1 dram, and count them, then ascertain how many drams of pills there are, and you have the number. Broken sacks of corks can be quickly counted in the same way.

Trade Notes.

W. Ashton druggist, Aurora, Ont., has made an assignment.

J. H. Rose, druggist, Winnipeg, Man., has made an assignment.

E. G. Lemaitre is opening a branch drug store at 144 Queen street east, Toronto.

W. A. Dyer & Co. have opened a new drug store at 2337 St. Catherine street, Montreal.

J. H. Clements, formerly with Clarke & Co., Kamloops, B.C., is opening a drug store in Ashcroft, B.C.

A.W.Harding has sold his drug business at Kamloops, B.C., to R. G. Macpherson. Mr. Harding intends opening in Rossland.

F. J. Greer has opened a new drug store in J. A. Gibbons & Co.'s old stand, corner of Queen and Elizabeth streets, Toronto, Ont.

J. A. MacDonald will shortly occupy as a drug store the building formerly occupied by J. L. Lamont, at Whitewood, Assiniboia.

P. Bawden's store, Ridgetown, Ont., was entered by burglars recently and a quantity of goods and about ten dollars in cash taken.

C. B. Reeves, formerly of Chilliwack, B.C., has purchased, at bailiff's sale, the stock and fixtures of Grant Jessup's drug store, Nanaimo, B.C.

F. H. Hiscock, druggist, formerly with Langley & Co., Victoria, B.C., will take F. M. Crydorman's interest in the firm of Dean & Crydorman, in that city.

T. R. Morrow, of Rossland, B.C., formerly in the drug business, but lately in boots and shoes, has sold out, and intends opening business again as a druggist.

The Linseed Oil Mill, of Body & Noakes, Winnipeg, Man., is running full time, and the oil manufactured there is shipped not only to the Pacific coast, but also to eastern Canada.

A. J. McCall, Phm.B., of Toronto, has entered into partnership with G. A. Deadman, of Brussels, Ont. The new firm will carry on business in Mr. Deadman's old stand under the firm name of Deadman & McCall.

Montreal Notes.

It is currently reported that Mr. Henry Miles will remain in Montreal at the expiration of his present term of partnership with Messrs. Lyman, Sons & Co., and that he will embark in the wholesale drug and manufacturing pharmacy business on his own account. If he adheres strictly to the rule of not selling to the legitimate customers of pharmacists he is sure to succeed, and all good pharmacists will wish him success.

The appointment of Mr. W. Lecours as French Professor of Materia Medica and Toxicology at the Montreal College of Pharmacy has given general satisfaction. Mr. Lecours is already very popular with the students and the Board of Management. His method of teaching is very plain and simple. He does his best to make his students understand what he is talking about, and it is wonderful how he secures their attention.

Dr. Langelier, of the "Pharmacie Nationale," has returned from Europe, where he made extensive purchases of French and English novelties never before introduced here.

Mr. W. A. Dyer has rented his new premises and the placard on the window states that he will shortly open. His location is in the heart of the west end, which must be as sickly a region as is the east end, judging by the number of pharmacies.

It is rumored that an old established pharmacy is about changing hands, a pretty large sum having been offered for the whole thing as it stands. It is one of the few stores which have held their own in the face of all opposition.

When the retail pharmacists of America are united in one solid phalanx, then we shall see the manufacturers of patent medicines a little more anxious to stop the absurd cutting, which they, in a backhanded way, seem to cultivate.

As to departmental stores, which are doing so much temporary injury to all retail trades, many long-headed men do not believe they have come to stay. They are merely a revival, on a large scale, of the general store, and the old adage, "Jack of all trades and master of none," may well apply. Pessimists who think that the pharmacist will be wiped out of existence in the so-called march of business progress will, perhaps, be mistaken.

The public cannot do without the pharmacist; he is becoming more invaluable every day, and it is just possible that as education spreads, quack medicine, sold like ordinary merchandise in general stores, will be appreciated at its just value by a discriminating public, who will continue to rely on the physician and the pharmacist as their true friends.

The Universal Trade Association seems to be going ahead, notwithstanding the efforts of the patent medicine men and certain wholesale druggists. It is just possible the present platform of the association may have to be changed slightly, but the great point is to get the pharmacists of America into one solid phalanx *at a mere nominal cost to each*, and any association which can do this will be able to use an immense influence in the settlement of trade disputes. At present, the wholesale druggists and manufacturers are combined, both in Canada and the States, while the pharmacists are merely members of innumerable small local societies. The American Pharmaceutical Association's work is cut out in another direction altogether and can have but little influence in purely trade matters.

Meantime let the pharmacist make his business as personal and confidential as possible, and the public will soon find out the difference between patronizing an intelligent and honorable pharmacist and a drug department in a general store whose real owner perhaps resides in Glasgow or Timbuctoo.

Prince Edward Island.

As a result of one Charlottetown druggist wishing his name withdrawn from the agreement entered into last spring, and regulating the price of proprietary preparations, all the other druggists have lately met together several times and formed themselves into the Druggists' Association of Charlottetown, with its object "the mutual benefit of its members." The associated druggists renewed their pledges to uphold the scale of prices agreed to last spring, regulated the retail price of many drugs and medicines in common demand, and transacted other business calculated to encourage a kindly feeling among the druggists, to protect their rights and further their interests. The association is to meet from time to time, as need may arise, and it is not unlikely that an early outcome of the formation of the society will be the early closing of Charlottetown drug stores during the winter months.

It is announced that Mr. Fred de C. Davies will shortly leave the province, having undertaken work in connection with a bicycle manufacturing firm.

Messrs. Manson & McNeill, of Summerfield, have dissolved partnership, Mr. Manson entering the employ of a St. John, N.B., drug firm, Mr. McNeill opening a drug store in Montague, P.E.I.

British Columbia Notes.

December is with us again and 1895 will soon be past history only. And what a year it has been! We shook ourselves gladly free of the gloomy '94 and fairly leaped to meet the promising young year '95. But we have had disappointments with the gratifications. We were told that the back of "bad times" had been broken and it was only a question of waiting patiently for things to get gradually better. There are many waiting patiently yet. The drug business, as far as British Columbia is concerned, has had the least cause for kick of any business. Though there has been a shrinkage, yet (as far as your correspondent can learn) it has not been nearly as great as that experienced by other lines.

Competition is keener in British Columbia than even a year ago, and there is, unfortunately, a very strong inclination to cut prices. Both Vancouver and New Westminster have suffered considerably by this mistaken method of gaining business, and even Nanaimo has not been with-

out a touch of the green monster. I am pleased to be able to say that, with a few trifling exceptions, Victoria druggists have thus far succeeded in working amicably together, and uniformity in prices is the order of things.

In legislation 1895 is a golden year in the history of pharmacy in British Columbia. The pharmacy law of 1891 was a very poor affair, but the improvements made by the amendments of 1895, which became law in February, have furnished a pharmacy law equal to any in the Dominion.

Now as to the future. This province is recognized as a mining province, and with good cause ; for without doubt there are millions of dollars in gold, silver, copper, and coal alone yet to be unearthed. The impetus given to mining during this year is but an earnest of what is to follow ; for the next three years will undoubtedly see some great developments throughout the province. Hence prospects are encouraging, and though it will take time to recover from the universal depression, better times are ahead.

Then we are in hopes of furnishing means of study for the rising pharmacist in this province. At present there is no university; but with the completion of the parliament buildings at Victoria, and the immediate establishment of a school of mines, lectures in pharmacy, botany, chemistry, etc., may be confidently expected.

Mr. Frank Coyderman has disposed of his interest in the firm of Dean & Coyderman to Mr. E. H. Hiscocks, who for upwards of twenty years has been head clerk in the retail department of Messrs. Langley & Co., Victoria. Mr. Hiscocks was presented with a very handsome marble timepiece by his late employers upon his leaving.

Mr. Dean seems to have a taste for new partners just now, for on November 14th he united his fortunes with those of Miss Tite, of Victoria. Hence the store which was till November run by bachelors will hereafter be managed by old married men.

C. E. Jones' new "P.P.P.P." is a store unique in almost every particular. It is handsomely finished in oak. The counter runs along the end of the store instead of the sides, as usually seen. At the rear of this counter is the dispensing department, and at the rear of this again the sitting-room, bedroom and bathroom, for the use of the "always open" drug store night clerk. This is pure enterprize.

A "Frog-in-the-throat" window has been put in by John Cochrane, Victoria—the first in Victoria.

Officially Announced.—The anticipated combination of manufacturers of heavy chemicals in this country and Europe has been officially announced, and the effect on the price of certain heavy chemicals is already observed.

Pharmaceutical Testing.

BY BARNARD S. PROCTOR.

Pharmacists apparently require frequently reminding of their responsibility regarding the sale of any article named in the B.P. to supply it of B.P. quality, and the consequent necessity of examining preparations which they do not make for themselves. Probably few now make mercurial ointment. In my establishment there has been none made for fifty years, excepting one or two experimental batches, and our purchases during the same period have only yielded us two samples that raised any suspicion of questionable quality. One of these looked unusually pale in color, and proved to have globules of mercury still visible ; the other was unusually dark. Both were obtained from makers of high repute, and both proved to contain the legitimate proportion of mercury ; nevertheless, it may interest the trade to have an account of a simple method of dispensing counter testing I have recently adopted, which yields fairly accurate results in the hands of minor men. It may be performed as follows :

Mercurial ointment, ℥ij. Put it in a small flask and add :

Benzol	℥ij.
Water	℥ij.
Iodide of potassium	℥ss.
Iodine	gr. 23.

Warm till the ointment melts. Shake till the iodine dissolves. The brown color should disappear, the resulting liquor being turpid and rather dirty looking, but not brown, otherwise there is a deficiency of mercury. Two grains more iodine being added, the brown color is permanently restored. The theoretical quantity of iodine for neutrality is 24.6 grains, and the defining of the quantity as between 23 and 25 is probably as close as should be looked for in pharmaceutical work, and that no doubt would have sufficed to save our North London friends from the annoyance of public prosecution.

A test for the strength of tannin solutions which I devised some years ago, but have not hitherto published, may also have some interest, though not in relation to drug adulteration. It was brought into use a few days ago when a lady brought a few ounces of a tannin gargle, which she had obtained in another part of the kingdom, and desired we should prepare a further supply of the preparation having the same tannin strength.

Though tannin is slowly and imperfectly precipitated from its aqueous solutions by iron salts generally, the ferric salts are precipitated better than ferrous, and the acetate better than the chloride, and the presence of alcohol renders the precipitation speedy and complete. A solution was prepared by mixing :

Tinct. ferri perchlor, B.P.	℥ss.
Liq. ammon. acet. fort.	℥ss.
Spirit meth.	ad. ℥ij. M.

This solution was found to effect the complete precipitation of the tannin from an equal volume of a solution containing ℥i. of tannin in two ounces, the solvent being weakly alcoholic. When the solutions are mixed, a thick, black magma is immediately produced, in which settling of the precipitate would be quite hopeless, but if a drop is let fall upon bibulous paper, a black spot is formed, surrounded by a nearly colorless margin, and the neutrality of this margin may be readily indicated by its not developing color when touched by a drop of either of the reagents—iron or tannin.

The most convenient mode of operating is to make a number of spots of the iron solution upon white blotting paper. Mix half an ounce of the gargle with an equal volume of methylated spirit, add to this half a drachm of the iron liquor, stir well, and let a drop of the mixture fall upon the blotting paper very near to one of the iron drops, so that the spreading of the liquor in the substance of the paper causes the filtered margin of the drop to come into contact with the iron stain, where it will cause a dark line if the tannin be still in excess. Further additions of iron liquor to the tannin are to be made in the same way, testing after each, and making the additions smaller as the increasing faintness of the dark line of contact indicates that the neutral point is approaching. When the dark line ceases to be produced, count the number of minims of iron solution that have been used. Every sixteen minims used indicates one grain of tannin in the half ounce of gargle operated upon. The gargle tested was found to contain honey also, but that did not interfere with the accuracy of the indications, as was proved by preparing a gargle of the calculated strength, containing honey, and repeating the tannin determination with the same results.—*Pharmaceutical Journal.*

Ammonia Present in Corks.

In a preliminary note published in the *Schweizerische Wochenschrift fur Chemie und Pharmacie*, Dr. Paul Liechti states that his suspicions having been aroused by the results of some water analyses which he was engaged on, he determined to examine the new corks with which the containers had been closed. This he did by shaking each cork with 50 ccm. of water in a clean glass bottle provided with a glass stopper, pouring the water off into a tube, and testing it by means of Nessler's reagent. In every case a decided coloration appeared. He examined not only his own corks, which he had himself purchased but a few weeks previously from the manufacturer, but also a number of new corks obtained from local pharmacists and grocers. To avoid handling them, the corks were taken up with pincers to lay in the water. The reaction was not equally marked in each case, but it was always very decided.

In view of this observation Dr. Liechti utters a caution against the use of new corks as stoppers for bottles of water intended for analysis.—*American Druggist.*

"Sure Death"

One of the very Best and Cheapest Rat Poisons on the Market.

$9.00 PER GROSS.

NEATLY PUT UP.

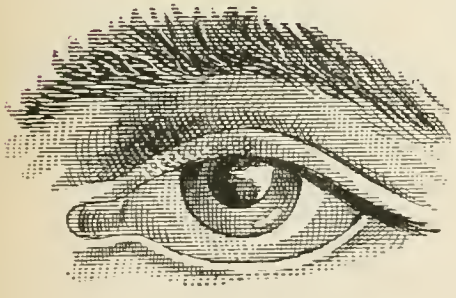
SELLS QUICKLY.

ARCHDALE WILSON & CO.

HAMILTON.

The Optical Institute of Canada

Principal, LIONEL LAURANCE.



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BEEF, WINE, AND IRON.

In Pint Bottles..... $5 00 per doz.
Winchester (½ Imp. Gal.)..... 2 00 each.
Imp. Gallon, in 5 gal. lots, and over 3 50 per gal.

With handsome lithographed labels. Buyer's name prominently printed on same, at the following prices:

¼ Gross lots, and over.....$60 00 per gross.
(Packed in One-Dozen Cases.)

We use a Pure Sherry Wine in the manufacture of this article, assuring a delicate flavor, and we guarantee the quality to be equal to any in the market.

We invite comparison with other manufacturers, and will cheerfully furnish samples for that purpose.

Your early orders and enquiries solicited through Wholesale Jobbers or direct from us.

Henry K. Wampole & Co.,
MANUFACTURING PHARMACISTS,
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Canadian Branch:
36 and 38 Lombard Street, TORONTO.

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Made in an honest way while doing a public good, and building for yourself a larger business.

I want one druggist in every county in the United States and Canada to act as my General Agent and keep supplied every other dealer in that county with my goods.

I am no quack doctor with a dope, no Gee-Hee Pagan-Chinese Joe-He Indian long-haired poke-root decoctor, or returned missionary from India, but a plain every-day honest American Geologist, with a discovery made in the mines—a nature-made article, nothing added or extracted. Nothing ever made by man sells like it sells and holds its friends, and I am able, ready, and prepared to prove it at my own expense to any honest druggist in every county as above. It has never before been offered to the trade, and will not be sold to the wholesale dealers for its weight in gold.

I want to correspond and conclude a deal with one dealer as above, who wants to increase his business and expects to stay where he is, and who is worthy of credit and confidence.

Remember I am only going to deal with one in a county, and in such a way that he will be protected from all outsiders. This is no humbug or swindle, and not a cent will be required of you until after you have made money at my expense.

Address,

THEO. NOEL, Geologist
857 West Polk Street
CHICAGO, ILL.

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THE ALBERT TOILET SOAP CO'Y
Are the best sellers in the market.

BURTON'S ALL-HEALING TAR AND GLYCERINE Tinfoil outside and inside wrapper. One doz. in box. Specially made for shampooing
Used in all the Maternity Hospitals

MASTER MECHANICS' In tinfoil and Carton. In boxes of 1 dozen, and cases of 50.

PINE TAR Tinfoil and Carton. One-dozen packets.
A popular 5-cent article.

CONFIDENCE in the merits of the goods you sell is an important element of success.

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can always be sold with the most absolute guarantee that it is the best Beef preparation.

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RUBBER GOODS

AT RIGHT PRICES

OUR LINE OF
ENEMAS, TUBING, FOUNTAINS, ATOMIZERS, is very complete and prices right. Buyers can effect great saving by placing orders with us.

SURE-SELLING SPECIALTIES:
CARSON'S BITTERS
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¼ gross Box at $1 per Box.
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In 5c. Packages, ¼ gross Box, $1 per Box.

Full lines of Sundries.
Mail orders promptly executed

ALLAN & CO.
132 BAY ST., TORONTO

Pharmacy in England.

The History of Aconitine, by Dr. Freund Airol—An Iodoform Substitute—A Dyeing Soap Novelty—Hospital Ship for Ashanti Ointments of the B.P. Artistic Labels for Specialties.

(By Our Own Correspondent.)

The aconitine controversy is by no means over. Those who have followed carefully the evidence in favor of either Dunstan or Freund have long ago concluded that the last word has yet to be said. But it is also manifestly clear that it will have to be uttered by neither Dunstan nor Freund. In this country we regretfully admit that since Dr. Alder Wright's decease we have no sufficiently careful investigator capable of taking up the matters now in dispute and setting them at rest forever. The latest contribution to the question is by Dr. Martin Freund, who writes the history of aconitine, as viewed by Martin Freund. Soon, no doubt, a reply will be forthcoming from Dunstan denying Freund's charges and reiterating the correctness of the research laboratory's figures and conclusions that Freund so seriously impugns. In the interests of science it is to be hoped that an independent observer, whose ability and freedom from bias should be unquestionable, may speedily arise and determine the correctness of the much-disputed formula of aconitine. Should Professor Dunstan's work be corroborated, a banquet in his honor would be none too small a recognition of the manner in which he has fought the question against an extremely bitter opponent. If, on the other hand, Dr. Freund's conclusions are confirmed, the Pharmaceutical Society had better close forever the page on the aconitine research and undertake something less ambitious and more likely to yield correct and useful results.

Airol, the latest iodoform substitute hailing from the Fatherland, is receiving considerable attention in medical quarters just now. The *British Medical Journal* had a favorable notice of it only last week, and the London agents are sending a neat *brochure* to all the members of the medical profession and to pharmacists. Airol is an iodo-bismuth preparation in combination with gallic acid. It is a grayish-green powder, very light and voluminous, free from odor and taste and insoluble in alcohol, ether, water, etc. Its advantages over iodoform, dermatol, and similar substitutes are stated to be: It contains iodine in an active but harmless condition; it liberates iodine and gallic acid gradually in the presence of the serous liquids of wounds; it leaves a basic bismuth residue as a protective to the wound; it combines the antiseptic advantages of iodine, the astringent property of gallic acid and the dessicated action of bismuth. Experiments have shown that it is free from toxic or irritant characters, whilst owing to its extreme lightness in comparison to iodoform, it is relatively cheaper. The objections may be summed up as chiefly concerned with its price and also as to its superiority to this form. The latter is cheaper, and so far has received a fairly satisfactory amount of attention. In spite of all, however, in the large hospital practices iodoform holds its own, although its objectionable odor is painfully recognized by both physician and patient.

A novel soap is about to be introduced to the public for the purpose of dyeing garments, ribbons, etc. This soap is the patent of a Belgium chemist and contains the dye incorporated in the soap, so that by merely washing the article sufficiently with the acid of the soap the particular dye is obtained. The principal objection to amateur or home dyeing is also removed, as it is claimed that this peculiar combination prevents the dye from acting on the skin of the operator. The soap will be shortly placed in the hands of the retail druggists, and if the claim is correct it will probably prove a popular article, as the price is only 8 cents per tablet to the public. I have not had an opportunity of examining the soap, but am assured by those who have done so that it fully bears out the claim of the inventor. Of course the soap will be procurable in all the principal shades, including some of the most recent and fashionable.

The expedition to Ashanti has caused the authorities of the army medical department to requisition one of the P. and O. steamers, the *Coromandel*, as a hospital ship. She is now lying in the Royal Albert Docks and is being fitted up for the purpose with the necessary hospital appliances by Messrs. Savory and Moore, of New Bond street, London. A regular dispensary is being arranged, as well as special surgical and sick wards. The hospital ship will form a base for the treatment of the more seriously wounded where special operations have to be performed, and particular attention is being paid to antiseptic precautions, so that the surgeons will be operating under the most favorable circumstances that recent discoveries can suggest. Some remark has been caused that the work of fitting up the ship has not been given to the present contractors for the supply of drugs, etc., to the army. But the work is more in the nature of supplying special fittings and appliances, and Messrs. Savory & Moore appear to have held this position to the army for some time. Their military panniers, field dressings, hospital haversacks and pharmacy wagons have been adopted by the army medical authorities for very many years.

Some very practical notes on the B.P. ointment are now being published in the *Pharmaceutical Journal*. Dispensers and manufacturers have had more reason to complain about ointment than perhaps any other class of preparations in the B.P. Some are too hard and some too soft, whilst no provision is made for the variation of temperature. The formulæ of some of them, such as carbolic acid, iodoform, eucalyptus, etc., are so unsatisfactory that strict adhesion has long been abandoned in many pharmacies. In the paper referred to on ointments, alternative formulæ are suggested, and most of them are a distinct improvement on the official. Iodoform ointment, however, is recommended with basis of wax, oil and simple ointment. I have not tried this, but the experience of several years has shown me that when vaseline is substituted for the benzoated lard of the present official formulæ, a product is obtained that is perfect both as regards appearance and keeping properties. In hot weather the addition of a little hard paraffin for a portion of the vaseline is advisable. It was recommended some time ago that lanoline ointment was a capital basis for this preparation, but such a complete alteration in the formulæ would be hardly justifiable without the prescriber's consent, whilst its general acceptance is unlikely unless lanoline descends considerably in price. As to its keeping properties when so made I can certainly testify in its favor.

At a recent exhibition I remember noticing that a certain manufacturer of proprietary preparations had displayed a framed parti-colored picture that on a closer examination proved to be a collection of his labels. They were all exquisitely designed in gold and colors and had a very attractive appearance. It struck me that pharmacists too often overlook the effect that a really artistic label has upon the public. Without any lavish expenditure of money it is possible to obtain labels, printed only in black and white, of very tasteful appearance when taken from a copper plate. Many pharmacists who would scorn to send out a mixture from their dispensary department not finished off with a pleated cap seem quite satisfied that their specialties should bear even less adornment and a severely plain label. Art in advertising is recognized as productive of good results, and what is the label but an advertisement if properly arranged.

Treatment of Customers.

Do not let customers remain in your store unattended longer than possible; find out what they want and ask them to be seated. They will then willingly wait a few moments if you are too busy to serve them immediately. At the same time, you must not forget to wait upon customers in the order in which they enter the store. Give the child or poorly dressed person the same attention you would bestow upon the sage or millionaire. Each one is justly entitled to such attention, irrespective of the money he may leave with you. Honorable dealing of this character soon gets to be known in your neighborhood, and the knowledge of it gives you added dignity in the eyes of your friends.

To preserve hydrogen peroxide, add to each liter of the solution one gramme of naphthalene.

Correspondence.

The Editor does not hold himself responsible for the opinions of correspondents.
Correspondents must in all cases send name and address, not necessarily for publication.

Guelph, Ont., Dec. 5th, 1895.

Editor CANADIAN DRUGGIST.

SIR,—Your remarks regarding my refusal to sign a document presented to me by an entire stranger, who refused to give his name or whom he represented, or any information regarding the promoters of the document, or the proposed scheme to be discussed, is taking a liberty which no respectable journal is in the habit of doing.

Any further interference by you, with me, in the management of my business, will be dealt with as it deserves.

It will be necessary for you to give this the same publicity as you gave your editorial in the last issue of your publication.

Yours truly,
A. B. PETRIE.

Toronto, Ont., Dec. 3rd, 1895.

Editor CANADIAN DRUGGIST :

SIR,—Will you kindly insert the enclosed letter in your next issue of THE CANADIAN DRUGGIST, giving an explanation of the item appearing in the November number of your paper, to the effect that the druggists of St. Catharines were cutting on the goods of the Ontario Chemists' Manufacturing Co.

Yours sincerely,
JOHN HARGREAVES,
For Ont. Chem. M'fg. Co.

[A Copy.]

St. Catharines, Ont.,
Nov. 17th, 1895.

John A. Clark, Esq.,
Sec'y O.C. M'fg. Co.,
Hamilton, Ont.

DEAR SIR,—Your favor of the 16th to hand. In reply I take pleasure in stating as follows : You will remember about two weeks ago I received from you a letter drawing my attention to the fact that by my advertising Ontario Chemists' Iron Tonic and Liver Pills at ten cents I was breaking the rules, customs, etc., of the Ontario Chemists' Manufacturing Company. You will also remember that I wrote you at once, acknowledging my error by so doing, and also stating that I would have my advertisement removed at once, which I did. Since then I have obtained full prices for all O.C. goods. I may also state that it is my intention to uphold full prices on all O.C. goods.

Yours very respectfully,
(Signed) J. N. WALKER.

A LARGE PRODUCTION.—The annual production of olive oil by Spain is larger than that of any other country. It is nearly seventy-nine million two hundred and fifty thousand gallons.

Pharmacy in Mexico.

BY JAMES F. BALLARD.

There are six large wholesale and retail, and about fifty retail drug stores in the city of Mexico. The largest of the wholesale and retail establishments are the "Drougera Universal" and Felix Carlos & Company ; either of these carry a well-equipped stock of fully $500,000, and are said to have behind them a capital of from four to five million dollars. The former, however, is reported to have met with serious losses, through mismanagement extending through a period of years, and is understood to be going into liquidation. The other wholesale establishments appear to be prosperous.

THE RETAIL TRADE.

The retail stores are the ones who are reaping the harvest ; they have no brother cutters to contend with, and no department stores to compete with. Clerks are well paid ; the ordinary salary for drug clerks off the main thoroughfares, where only Spanish is spoken, is $60 per month, but in stores on prominent streets where more than one language is required to be spoken, salaries average from $80 up to $125 per month, and in the wholesale and retail stores the retail clerks speaking English and Spanish are started in at $90 per month first six months, $100 second six months, $125 second year, and $150 third year. These regulations exist at Carlos & Company. The clerks in wholesale departments are paid up to $300 per month, according to ability, etc.

THE PRICES IN MEXICO.

The ordinary drugs and medicines command about the same prices which are obtained for them in the United States, but soap, sundries, brushes, combs, toilet articles, patent medicines, and all imported proprietary articles come very high, as the following prices will indicate :

Pears' Soap	.60
Cuticura Soap	.75
Packer's Tar Soap	.80
Strong's Arnica Tar Soap	.85
Cashmere Bouquet Soap	.85
Proctor & Gamble's Ivory Soap	.50

PATENT MEDICINES.

Paine's Celery Compound, per box	$4 00
Hood's Sarsaparilla, per bottle	3 50
Syrup Figs, 50c	2 00
Syrup Figs, $1	4 00
Horsford's Acid Phosphates, $1	4 00
Horsford's Acid Phosphates, 50c	2 00
Tarrant's Seltzer Aperient, $1	4 00
Tarrant's Seltzer Aperient, 50c	2 00
Castoria	1 12
Hostetter's Bitters	4 00
Ayer's Sarsaparilla	1 75
Ayer's Cherry Pectoral	1 75

These latter articles (Ayer's) are manufactured in Mexico, hence pay no duties.

It would seem the Mexican druggist made an enormous profit, but such is not altogether the case, as the following will demonstrate :

One dozen Paine's Celery Compound sells at $4 per bottle, or $48 per dozen	$48 00

Here is cost in Mexican money :

Original cost in New York per dozen (it is delivered them in New York)	$ 8 00	
Add cost of exchange (difference in value between Mexican and United States money)	7 00	
Freight, New York to City of Mexico	1 00	
Duty collected by Mexican Government, Vera Cruz	15 00	
Total	$31 00	31 00
Net profit per dozen		$17 00

Seventeen dollars profit on one dozen looks like a large margin, but this must be divided by two, as a Mexican dollar is only worth 54 cents in our money, hence they have only made about 75 cents profit on the sale of one bottle. However, this is twice as much as the American druggist would make if the articles were sold at regular price.

Mexico is suffering from a depreciated currency, as are all other Latin American countries. This fact, combined with the high tariff, makes all imported articles unreasonably dear. The native products of the country, however, are correspondingly low in price. I am told it requires about $20,000 in Mexican money to fit out a first-class retail store, and the inference would be, for those who had the necessary capital, Mexico offers unusual inducements for the next few years to the enterprising American who desires to embark in retail drug business.—*Meyer Bros'. Druggist.*

The Last Straw.

The long-suffering Spanish pharmacists, or "bobicario," so worried of late by domiciliary visitations, anything but few and far between, on the part of the revenue officials in their efforts to enforce the tax upon patents, have the prospect of other troubles of a like nature not very far ahead. The latest vexatious order issued by the treasury is that frequent visits are to be made to pharmacies by the tax-collectors, who have orders to demand the production for their inspection of the prescription books or registers, so that it may be seen if the medical men have complied with the regulation imposing upon them the use of stamped forms, value 10 centimos each, upon which the prescriptions are to be written. Spanish pharmacists contend, and rightly, too, that they have entire control of their books and registers, and can only be compelled to produce them by a judge's order in case of any poisoning or during a criminal investigation in open court, as is already provided for and stated in the Criminal Code. It is most derogatory to professional dignity, certainly, to be obliged to assist in bringing into the hands of the law fiscal delinquents, and it is to be hoped that the Spanish treasury authorities will not press such an unheard-of interference with pharmacists' rights. — *Pharmaceutical Journal.*

3 GOOD SELLERS

VELROSE

SHAVING CREAM
SHAVING STICK
BARBER'S BAR

PAY YOU WELL. PLEASE YOUR CUSTOMERS

ATTRACTIVE COUNTER ARTICLES

Order Sample ½ dozen from your wholesale house to come with next order.
We supply Samples for free distribution with first orders.

THOS. LEEMING & CO.

MONTREAL

FRONT AND BACK VIEW

AMERICAN SILVER TRUSS

MANUFACTURED BY—
The Smith Manuf'g Co., - Galt, Ont.

The Silver Truss

IS A NEW INVENTION,
NEW IN PRINCIPLE,
NEW IN DESIGN,
NEW IN APPLICATION,
and the MOST PERFECT KNOWN.

The great success of this Truss in holding with comfort all kinds of hernia, whether adults, youths, or infants, all over Canada, the United States, and Europe, is phenomenal. They have been adopted by leading hospitals, surgeons, and rupture specialists of the United States, and by Westminster and Guy's Hospitals, London, Eng. No greater recommendation could be accorded any appliance than its adoption by the physicians and surgeons comprising the staffs of these hospitals, which rank among the largest and best in the world.

MANUFACTURED BY

THE SMITH MANUF'G CO., GALT, ONT.

LITTLE'S PATENT FLUID

NON-POISONOUS

SHEEP DIP AND CATTLE WASH.

For the Destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc.

Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness, and Irritation of the Skin, making the coat soft, glossy, and healthy.

Removes the unpleasant smell from Dogs and other animals.

"Little's Sheep Dip and Cattle Wash" is used at the Dominion Experimental Farms at Ottawa and Brandon, at the Ontario Industrial Farm, Guelph, and by all the principal Breeders in the Dominion; and is pronounced to be the cheapest and most effective remedy on the market.

☞ 17 Gold, Silver, and other Prize Medals have been awarded to "Little's Sheep and Cattle Wash" in all parts of the world.

Sold in large Tins at **$1.00**. Is wanted by every Farmer and Breeder in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

To be had from all wholesale druggists in Toronto, Hamilton, and London.

TRADE C H MARK

Little's Soluble Phenyle

DEODORISER & ANTISEPTIC

NEW DISINFECTANT.

FOR UNIVERSAL USE

CHEAP, HARMLESS, AND EFFECTIVE

A Highly Concentrated Fluid for Checking and Preventing Contagion from Infectious Diseases.

NON-POISONOUS AND NON-CORROSIVE.

In a test of Disinfectants, undertaken on behalf of the American Government, "Little's Soluble Phenyle" was proved to be the best Disinfectant, being successfully active at 2 per cent., whilst that which ranked second required 7 per cent., and many Disinfectants, at 50 per cent., proved worthless.

"Little's Soluble Phenyle" will destroy the infection of all Fevers and all Contagious and Infectious Diseases, and will neutralize any bad smell whatever, not by disguising it, but by destroying it.

Used in the London and Provincial Hospitals and approved of by the Highest Sanitary Authorities of the day.

The Phenyle has been awarded Gold Medals and Diplomas in all parts of the world.

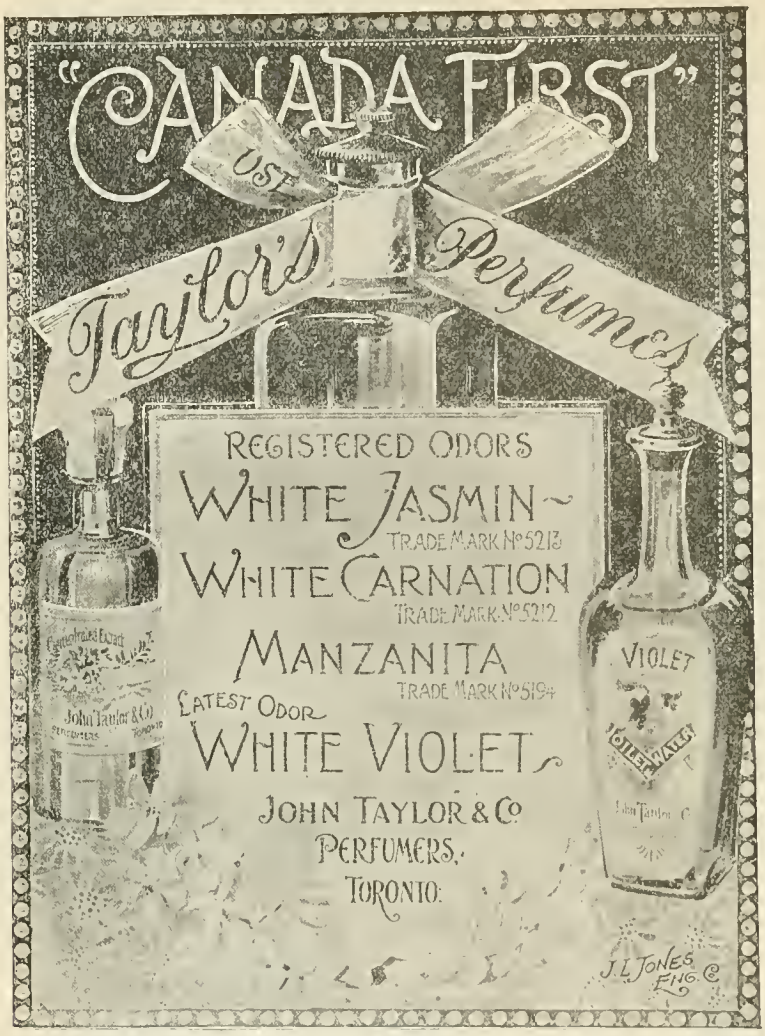
Sold by all Druggists in 25c. and 50c. Bottles, and $1.00 Tins.

A 25c. bottle will make four gallons strongest Disinfectant. Is wanted by every Physician, Householder, and Public Institution in the Dominion.

ROBERT WIGHTMAN, Druggist, OWEN SOUND, ONT.

Sole Agent for the Dominion.

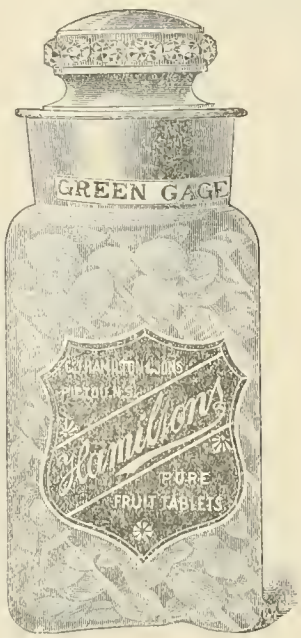
To be had from all Wholesale Druggists in Montreal, Toronto, Hamilton, and London, Ont., and Winnipeg, Man.



Fine Fruit Tablets

ENGLISH FORMULA TABLETS

Have been our specialty and have been a success. Packed in elegant Flint Glass Jars, large glass stopper, the finest package in the Dominion. Also in round jars, similar to English, but made two inches shorter to fit the ordinary shelf. A large variety. List of flavors and prices on application.



G. J. HAMILTON & SONS,

PICTOU, N.S.

A PERFECT TOILET GEM.

ARECA NUT TOOTH SOAP

The drug trade of Canada will find this one of the most satisfactory articles on the market. The package is convenient and attractive.

Kindly make sure the ARECA NUT TOOTH SOAP offered you is made in Winnipeg. The genuine is for sale by

Lyman Bros. Co., Toronto,
Elliot & Co., Toronto,
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MARTIN, BOLE & WYNNE CO.,

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ALL KINDS OF . . .

CRUDE DRUGS.

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FREDK. GRAF, DRUG MERCHANT,

65 FENCHURCH ST., LONDON, E.C.

Established 1886. Prices and samples on application.

	PER DOZ.
No. 1. Nozzle and Shield, with Outlet Tubing . .	$30
No. 2. " " Complete 2-qt. Fountain,	48

DISCOUNT TO TRADE ON APPLICATION.

BEST SYRINGE ON THE MARKET. SOLD BY ALL JOBBERS.

LYMAN, KNOX & CO.

Montreal and Toronto

Agents for Canada.

Ontario Society of Retail Druggists.

An important meeting of the retail druggists of Ontario, convened by circulars, was held at the Ontario College of Pharmacy, Gerrard street east, Toronto, on Wednesday, Dec. 4th, for the purpose of discussing the advisability of forming a permanent association having for its objects the safeguarding of trade interests and the general advancement and welfare of the retail druggists of the province, with particular attention to the burning question of price cutting. The meeting was called to order shortly after 1 o'clock with Mr. S Tapscott, of Bradford, in the chair, and Mr. J. T. Pepper, Woodstock, acting secretary. The following gentlemen were present, viz. :

J. B. Meacham, Robert Tuthill, G. G. Butler, J. R. Bond, Thos. Cruttenden, jr., D. C. Ferguson, F. B. Bunting, S. Howarth, W. R. Reid, Harry Sherris, A. Dow, D. L. Thompson, E. A. Goodman, G. A. McCann, G. M. Petrie, J. W. Houston, F. Terry, W. J. Mitchell, G. E. Gibbard, J. H. MacKenzie, H. G. Horton, Jas. H. Hallett, W. H. Cox, W. H. Ellis, Geo. A. Harbottle, G. E. Hazelton, J. W. Struthers, J. A. Austin, W. Murchison, Robt. Robinson, W. Latimer, C. F. Botsford, H. M. Kipp, C. H. Conen. F. W. Flett, John McKay, W. H. Gilpin, W. A. Hargreaves, Geo. H. Hanna, G. J. Little, Hugh Brown, J. R. Lee, Robert W. Campbell, W. H. Field, T. W. Scott, E. H. Bauld, J. C. Lander, John C. Gray, W. V. Cook, George A. Bingham, Jackson L. Little, Isaac Curry, Ira F. Belfry, E. B. Stevenson, R. W. Boyle, George Marshall, C. D. Daniel, Jas. Hutty, J. M. Pearen, A. J. Truss, all of Toronto ; J. A. Zimmerman, W. A. Howell, Alex. Mitchell, James, Harrison, of Hamilton ; Henry Watters, Ottawa ; N. J. McDermid, E. W. Boyle, Geo. M. Anderson, J. G. Ross, London ; D. S. Sager, M. H. Robertson, Brantford ; John McKee, Wm. Walsh, John Nugent, Peterboro ; Allan Cameron, Robert Wightman, A. W. Manley, W. H. Taylor, J. F. McCallum, Owen Sound ; W. A. Karn, J. G. Karn, J. T. Pepper, D. B. Phillips, D. A. White, Woodstock ; A. J. Greenwood, Geo. M. Mittleberger, Harry Southcott, W. W. Greenwood, St. Catharines ; Robert Ferrah, R. S. Strong, jr., F. C. Bond, W. M. Kirkland, Galt ; S. Fraleigh, F. G. Sanderson, John McLean, St. Marys ; W. G. Smith, John B. Williams, Guelph, C. E. Nasmyth, Stratford ; A. J. Roos, J. H. Landreth, Berlin ; S. Snyder, E. M. Devitt, Waterloo ; John Wood, D. H. MacLaren, Barrie ; S. Jackson, E. J. Dick, Preston ; J. H. Smith, Dunnville ; J. E. Richards, Aylmer ; J. V. Kannavin, Aeton ; R. Ventress, Bobcaygeon ; R. H. Hodgson, Brampton ; S. J. Snell, Bolton ; F. W. Law, Beeton ; John H. H. Jury, Bowmanville ; L. W. Yeomans, Belleville ; G. A. Deadman, Brussels ; H. Parker, Durham ; J. Seatter Hagersville ; J. C. Mills, Jarvis ; A. McKinnon, Kincardine ; W. Turner, Markdale ; A. Higginbotham, Milton ; Stuart Scott, Newmarket ; W. Rutherford, Norwood ; A. Turner, Orangeville ; R. C. Balmer, Oakville ; Chas. A. Nettleton, Penetanguishene ; J. K. Kellock, Perth ; H. W. Ansley, Port Dover ; W. A. Sanderson, Richmond Hill ; M. F. Derby, E. E. Phillips, Selkirk ; W. J. Dyas, Strathroy ; R. H. McClury, Streetsville ; Alex. Wilson, Seaforth ; J. L. Mackenzie, Stouffville ; C. A. Auston, Simcoe ; and H. C. Fleming, Windsor. A few besides the above were present but omitted to sign the roll, the total attendance being over one hundred and fifty. Throughout the entire proceedings, which lasted until late in the afternoon, the greatest enthusiasm prevailed, and every reference made by speakers to the necessity of prompt, united and determined action was loudly and unanimously applauded.

In opening the proceedings the chairman briefly outlined the situation, and spoke of the draft agreement which had been drawn up by the provisional executive and submitted to the druggists of the province, adding that the response had been hearty, indicating a widespread determination to take action along the lines proposed and to support the movement to organize a permanent association to protect their interests. The secretary read a large number of letters and telegrams from those unable to be present, including the following : R. D. Scott, Sarnia ; R. W. Chambers, Blenheim ; N. A. Bosworth, Stratford ; R. N. Thurtell, Teeswater ; — Miller, Walkerville ; Harry Days, Lucknow ; A. Higginbotham, Lindsay ; Thos. Sweet, St. Catherines ; John Coats, Walkerton ; S. A. Hodge, Mitchell, T. B. Taylor, Watford ; F. G. Walley, Ingersoll ; R. A. Harrison, Dunnville ; W. H. Smith, Niagara Falls ; J. F. Roberts, Parkhill, J. E. Neville, Berlin ; M. F. Ely, Port Elgin ; J. M. Hargreaves, Paisley ; W. J. Macartney, Thorold, and others. These all expressed hearty sympathy with the objects of the association and promised moral and financial support. The chairman intimated that the provisional committee had prepared a draft constitution for the consideration of the meeting, but he suggested some general discussion before proceeding to definite action. This suggestion was adopted and several present spoke.

Mr. Seatter, Hagersville, said that they found so many cutting prices in his locality that they hardly knew if they had any trade left unmolested ; organization was what was needed.

Mr. Nugent, Peterboro, expressed himself fully in sympathy with the meeting, and Mr. Walsh of the same town declared that the great trouble was that the druggists had not confidence in one another. There were too many small men in the business, but if they would only act as a unit they could dictate their own terms. Mr. John McKee, the other member of the Peterboro trinity, and vice-president of the college council, endorsed these views.

Mr. Phillips, of Selkirk, said they were not cutting in his locality but were still doing business on the good old principle of selling for a profit—("Hear, hear")—and unless they had a definite promise from, and understanding with, the wholesale men they could not do much. He would ask if the proposal was to dispense with the jobber and deal direct with the manufacturer.

The Chairman—No, the reverse of that ; we deal through the jobber and wholesale man every time.

Mr. Phillips—Well, how do the manufacturers stand ; have they given any sign ?

The Secretary replied that he had written to all the wholesale men and had replies from some. Messrs. Henry Skinner & Co., Kingston, expressed hearty sympathy and a wish to co-operate. The secretary of the Wholesale Druggists and Proprietary Medicine Dealers' Association wrote that his association was meeting on the following day and would be pleased to confer with a deputation, and Messrs. J. Winer & Co., Hamilton, were ready to co-operate in every reasonable effort, if only the retailers themselves would be unanimous ; and Jas. A. Kennedy & Co., London, and the London Drug Company wrote cordial endorsation and each enclosed a cheque for $10 towards the funds of the society. Archdale Wilson & Co., Hamilton, had always tried to prevent the cutting of prices and if the manufacturers would deal only with the wholesalers, then something tangible could be accomplished. T. Milman & Co., Toronto, Northrop & Lyman, Toronto, and the Garfield Tea Company, all wrote in the same sympathetic strain and promised every possible assistance.

The Chairman announced that the jobbers were a unit on the question and had passed a unanimous resolution to that effect.

Mr. W. A. Karn, Woodstock, was anxious for a full discussion of the matter, that all might express their views. The evils they were complaining of were flooding the country with a sea of demoralization which would sooner or later swallow up the trade if something was not done to stem the tide. They were in the wilderness of unfair cutting and unscrupulous competition and must look for a Joshua to lead them safely out into the promised land. President Tapscott was their Joshua who would lead them out of bondage (Cheers). He felt encouraged at the success of the movement so far and was satisfied that victory was ahead of them. Their trade was slipping away from them, but they had largely themselves to blame. The Pharmacy Act was as full of faults as a pelican's egg was full of meat. The council had done all that could be reasonably expected of it, but what was lacking was the co-operation of the trade, for if the druggists would not lend a hand the council could not longer guide the pharmaceutical ship off the trade breakers

ahead. No trade to-day was succeeding except by co-operation, and those that stood together won every time. One suggestion he would make to them : do not deal with the departmental stores, for all the patronage they gave in that direction was so much more towards turning the key in the door of the little store at home. ("Hear, hear").

The jobbers were with them, continued Mr. Karn ; let them stand by the jobbers. The manufacturers also should be with them, and they would be if they were sure of support. He advised that a deputation meet the wholesalers the following day and make a reasonable proposition to them. There was plenty of material for the proposed association to work up a universal price book ; for instance, a Dominion organization, and so on. Above all things let them keep above petty local disputes. Let the local organizations deal with such. He would advise a scheme of district organization, with a local man to perfect the work. Let them unite, keep in touch with one another, secure the sympathy of the trade journals, and rely upon each other. Their interests were identical, whether in city, town, or village, but they must work together in peace and harmony, back up the association they were about to form with their brains and their money, and let their loyalty to the cause be equal to the greed of their unscrupulous competitors. (Cheers.)

Mr. Murchison, Toronto, asked what had become of the old association.

President Yeomans replied that the old association was more of a scientific society, whereas this was a business concern, but the old officers would most gladly lend every aid ; he was delighted to see such unanimity of spirit pervading the meeting.

The consideration of the draft constitution was then taken up, and, after lengthy discussion, was adopted without material change. The main clauses provide that the organization be called the Ontario Society of Retail Druggists, that any registered druggist actually in business under his own name be eligible for membership who will agree not to sell patent medicines and proprietary articles under the prices intended by the manufacturers, and to sell drugs, sundries, and specialties at regular prices. The objects of the society, as set forth in the constitution, are to safeguard the interests of the trade, to establish, as far as possible, a uniformity of prices, to co-operate with the manufacturers, wholesalers, and jobbers in preventing cutting, and to establish a fraternal and kindly feeling among the members of the profession. The officers decided upon were a president, a vice-president, secretary, treasurer, and executive committee of thirteen, one from each of the electoral districts of the Pharmacy Act. An annual fee of $1 is collected from each member, and if the funds at any time prove insufficient, the executive have power to make further calls, but not more than $5 in all can be demanded from any one member in any one year. A two-thirds vote is needed to change the constitution, and then only after a month's notice to the members.

The matter which created most discussion while the constitution was under consideration was the question of a name. A very strong feeling was expressed in favor of making the title co extensive with the Dominion, Messrs. Yeomans, Meacham, and McCann speaking in that behalf, while Messrs. MacKenzie, Dyas, Gibbard, Korn, Waters, and Greenwood advocated the Provincial style and title proposed by the committee, though more than one suggested that eventually the name might be made more comprehensive, as the work extended beyond the limits of Ontario. Finally, the question was put to the vote, and on motion of Messrs. Waters and Greenwood the association was named the Ontario Society of Retail Druggists. An amendment from Dr. Sager to leave it to the Executive, and a second amendment from Mr. McCann to call it the Canadian Society of Retail Druggists, were both voted down.

The election of officers was next taken up, and Mr. Tapscott, of Brantford, was nominated for president amid great applause. That gentleman, however, declined it, and, though repeatedly urged from all parts of the meeting, was unable to see his way to accept the office. Messrs. W. A. Karn, R. Ferrah, L. W. Yeomans, W. G. Smith, and G. E. Gibbard were then nominated in the order named, but declined with various reasons, except the last, who consented to take the position, amid applause.

For vice-president, Mr. Tapscott received the unchallenged vote.

For secretary-treasurer, Mr. J. T. Pepper was chosen without a second nomination.

The executive committee was chosen as follows, a representative from each of the thirteen electoral districts : 1, W. A. Lloyd, Ottawa ; 2, L. W. Yeomans, Belleville ; 3, William Walsh, Peterboro ; 4, Isaac Curry, Toronto ; 5, F. W. Flett, Toronto ; 6, C. A. Nettleton, Penetanguishene ; 7, W. G. Smith, Guelph ; 8, A. J. Greenwood, St. Catharines ; 9, R. Ferrah, Galt ; 10, Charles A. Auston, Simcoe ; 11, W. T. Strong, London ; 12, John Parker, Owen Sound ; 13, H. O. Fleming, Windsor.

The officers and executive, with Messrs. J. H. Mackenzie and W. A. Karn, were appointed a deputation to meet the wholesale druggists and jobbers and consult with them upon the subjects which had been under discussion.

The executive was authorized to engage a paid organizer to work in the interests of the society wherever it was thought necessary to do so.

This concluded the business before the chair, and by resolution the meeting decided to hear a few remarks from Messrs. R. C. Spohn, Toledo, and N. Hayes, Detroit, upon the objects and methods of the Universal Trade Association of Retail Druggists, an organization in the United States, having similar objects in view as the Ontario Society. The particulars of an ingenious label system of tracing sales, by means of which it was practically impossible to sell surreptitiously to blacklisted cutters without detection, was fully described, after which the visitors asked that the new society give them a resolution of sympathy and endorsation. The matter was on motion referred to the executive committee for action.

The meeting then adjourned to meet again at the call of the chair.

Dr. Julius Althaus writes a letter to the *British Medical Journal*, in which he advocates the extension of the principle whereby the names of official preparations do not indicate their principal constituents, after the manner of pil. saponis co. He suggests that liquor arsenicalis should be called liquor Asiaticus or liquor Hevzoti ; tinct. nucis vom., tinct. amara ; potass. bromid., sal alterans; liquor strych., liq. pelletieri or liquor ignatii, and so forth. —*British and Colonial Druggist.*

To Make a Painless Vesicant.—Take of menthol one gram, chloral hydrate one gram, cacao butter two grams, spermaceti four grams. Make into an ointment and spread upon lint or adhesive plaster.

To Clean Rusty Instruments.—Fill a suitable vessel with a saturated solution of chloride of tin in distilled water, immerse the rusty instruments, and let them remain over night. Rub dry with chamois after rinsing in running water.

Salol Camphor.—A mixture of salol, three parts, and camphor, two parts, forms a viscid liquid, but the addition of 10 per cent. only of camphor results in the formation of salol camphor, which is crystalline and can be powdered.—A. D. & P. R..

A Florida Law. —"Any person or persons who shall falsely or maliciously disseminate or spread rumors or reports concerning the existence of any infectious or contagious disease shall be guilty of a misdemeanor, and, upon conviction, shall be punished by a fine in a sum of not less than $100 nor more than $1,000, or be imprisoned in the county jail for not less than three nor more than six months."

At Venice, when any one dies, it is the custom to fix a placard on the front of the dead person's house, as well as in the neighboring streets, as a sort of public notice, stating his name, age, place of birth, and the illness of which he died, affirming also that he received the holy sacraments, died a good Christian, and requesting the prayers of the faithful.

To remove aniline stains, wash with a solution composed of sodium nitrate, seven parts, sulphuric acid dilute, fifteen parts, water, five hundred parts. Before using let stand twenty-four hours and apply with a camel's hair brush.

Stearates.

BY FRANK EDEL

While much attention has been given to the medicinal properties and mode of preparing the different oleates, the stearates have been vouchsafed but little notice. It is true that some years ago Rother recommended the stearate of lead, and suggested a formula for preparing it; but further than this, until the recent efforts of a manufacturing firm in behalf of the stearate of zinc, these preparations were but little more than chemical curiosities. Some months ago the writer, after experimenting with different processes for producing zinc stearate, determined to extend the experiments so as to take in the more prominent stearates, some of which are, he believes, destined to play a useful part as medicines. The result of the experiments with the production of zinc stearate was given in a paper on this subject, published in another journal some months ago.

In the preparation of the oleates, preference is usually given to the oleate of soda, but this is largely a matter of convenience, and not in the writer's opinion due to any superiority of this oleate over the oleate of potassium; on the contrary, where the oleate is made, as recommended by Beringer, from oleic acid and base as wanted, the potassium salt is much to be preferred in the great majority of cases. In preparing stearates the potassium stearate will be found preferable.

In my first experiments some difficulty was experienced in preparing a solution of stearate of potassium. This was due to the insolubility of the acid in water; but by taking advantage of the solubility of both acid and alkali in hot alcohol, the difficulty was overcome. The formula then suggested for preparing this solution, and used in experiments with stearate of zinc, was as follows:

Solution Stearate of Potash.

Caustic potash	143 grains.
Stearic acid, cut fine	897 "
Alcohol	3 ounces.
Hot water to make	½ gallon.

Dissolve the acid in two ounces of alcohol by aid of heat, and the potash in one ounce of alcohol; mix the two hot, stirring constantly, and gradually add hot water to the limit.

This process was changed in the later experiments, as follows:

Stearic acid, cut fine	881 grains.
Caustic potash	176 "
Alcohol	4 ounces.
Distilled water to make	½ gallon.

Dissolve the potash in half a pint of water, and the acid in hot alcohol in a kettle or evaporating dish. Maintain the heat, and add solution potash with constant stirring, adding carefully toward the last till the solution (in which have been dropped a few drops solution phenolphtalein) remains a faint pink. Then gradually add the water to make the specified amount.

This solution should be used at a temperature of 160° or 180° F., and is best used immediately after making.

In preparing the different stearates it will be found best to use an excess of base, otherwise the stearate separates imperfectly, and difficulty will be found in washing.

Stearate of Zinc.

Acetate of zinc	389 grains.
Distilled water	1 pint.
Solution stearate of potash	½ gallon.

Dissolve the zinc in water, and add gradually to the solution of potash with constant stirring. Pour on muslin strainer, wash free from acetate of potash, and dry without heat.

The resulting stearate is a white, soft, impalpable powder.

Stearate of Iron.

Cryst. chlor. iron	285 grains.
Distilled water	1 pint.
Solution stearate of potash	½ gallon.

Dissolve the iron in water; add gradually with constant stirring to the solution of potash; drain on filter-paper; wash, and dry without heat.

The resulting stearate of iron is a brown mass which can, on drying, be reduced to powder.

Stearate of Lead.

Acetate of lead	605 grains.
Acetic acid	q.s.
Distilled water	2 pints.
Solution stearate of potash	½ gallon.

Dissolve lead in water, and add acetic acid until solution is clear; then add gradually with constant stirring to the solution of stearate of potash. Throw on muslin strainer, wash thoroughly, and dry without heat.

The resulting product is a soft, white, impalpable powder.

Stearate of Manganese.

Sulphate of manganese	348 grains.
Distilled water	1 pint.
Solution stearate of potash	½ gallon.

Dissolve manganese in water, and add to the solution of stearate of potash. Drain on filter-paper, and wash. Dry without heat.

The resulting stearate is a light brown fine powder.

Stearate of Nickel.

Sulphate of nickel	218 grains.
Distilled water	1 pint.
Solution stearate of potash	½ gallon.

Dissolve the nickel in water, add to the solution of stearate of potash, wash, and drain on paper filter.

The product is a light green soft powder.

Stearate of Copper.

Sulphate of copper	391 grains.
Distilled water	2 pints.
Solution stearate of potash	½ gallon.

Proceed as directed with nickel; drain, and wash on paper filter.

The resulting stearate of copper is a fine light blue powder.

Stearate of Silver.

Nitrate of silver	534 grains.
Distilled water	1 pint.
Solution stearate of potash	½ gallon.

Proceed as above. Drain on filter-paper. Dry without exposure to light.

The resulting product is a soft powder of light brown color. If dried carefully away from the light the color is very light.

Stearate of Aluminum.

Sulphate of aluminum	328 grains.
Water	1 pint.
Solution stearate of potash	½ gallon.

Proceed as with stearate of silver. Drain, and wash on filter-paper.

The product is a white, soft mass, easily reduced to powder.

Stearate of Mercury.

Bichloride of mercury	419 grains.
Water	2 pints.
Solution stearate of potash	½ gallon.

Proceed as directed with aluminum. The product is a fine white powder.

Stearate of Tin.

Solution chloride of tin	q. s.
Solution stearate of potash	½ gallon.

Add the solution of tin chloride to the potash solution with constant stirring as long as a precipitate is formed. Wash, and drain on muslin strainer.

The stearate is a white mass, easily reduced to a powder.

The above stearates, when dried and rubbed under the spatula, break down to a fine soft powder, having the same "feel" when rubbed between the fingers that powdered soap has.

Stearate of Bismuth.

Subnitrate of bismuth	307 grains.
Solution of soda	22½ drachms.

Mix, and boil for five minutes; wash free from nitrate of soda by decantation; then add 1 pint of water, raise to a boil, add 881 grains stearic acid, and continue boiling for twenty minutes, adding more water as necessary, stirring the mixture thoroughly.

The acid and bismuth will combine and form a white granular mass in bottom of vessel. This should be washed, dried on filter-paper, and reduced to powder by rubbing in mortar.—*Bulletin of Pharmacy.*

LANICHOL.—A neutral wool-fat prepared by special methods, which leave it entirely free from odor.

STYPTICIN.—New styptic introduced by Merck, and said to have a specific action on the uterus, thus preventing flooding, etc.

RUBROL.—Name given by Schmidt to a solution of boric acid, thymol, and "a coal tar derivative" (which one is not stated), recommended as an injection in gonorrhœa.

Canadian Druggist

WILLIAM J. DYAS, Editor and Publisher.

DECEMBER 15TH, 1895.

Impressions of the Meeting of O. S. of R. D.

The attendance was large, enthusiastic, and intensely in earnest. The province, from cities, towns, and villages, was thoroughly represented. The president, Mr. Tapscott, and the secretary, Mr. Pepper, had won golden opinions for the excellence of their preliminary work, and were in thorough touch with everything that went on The reports from the provisional executive were freely commented upon, yet unanimously endorsed. The druggists who couldn't come were represented by letters and telegrams of proxy, many of which well represented the individual sending them. Mr. Yeomans, president of the Provincial Association, in words aptly suitable to the occasion, gracefully made way for the new society, and lent it his ability to promote its successful issue. A proposition to terminate the meeting at an early hour to enable northern druggists to return by first train aroused a member of the council, Mr. Karn, of Woodstock, who, in a glowing speech of lengthy duration, covered the entire field of discussion, and showed that the druggists were assembled to discuss or listen to discussion of the subject which drew them together, and that if the time of meeting was prolonged for such a purpose, it would be profitably so. Mr. Karn was earnest, eloquent, and thoroughly infected with the desire to accomplish something, and his speech was undoubtedly the gem of the meeting. The naming of the baby" provoked more discussion than any other matter taken up. It was, however, finally baptized by Mr. Watters as the " Ontario Society of Retail Druggists," and peace once more reigned. During the discussion, an attempt to appropriate the name Dominion, instead of Ontario, called forth a warm protest from Mr. Gibbard, who characterized it as an attempt to steal the thunder of our Quebec brethren, who were entitled to the name, they being the originators of a Dominion association. Judging from the expressions used at the meeting in this connection, there should not be much difficulty in promoting a satisfactory entente between these two bodies.

The constitution was short and to the point, and framed for work rather than for appearance. Mr. Tapscott had the undoubted call for the president's chair, but saw fit to decline. Messrs. Karn, Yeomans, MacKenzie, Ferrah, and Gibbard were in turn named for the position, but all with one accord commenced to make excuses, except the latter gentleman, who, possibly, was unable to frame a new one after the others got through. Upon his acceptance he was immediately installed, and the celerity with which he shoved the remainder of the work showed that he meant business.

The principle of district representation has taken a firm hold of the drug trade, and the greatest desire for fairness in selecting on those lines is always manifested. If each member of the executive committee performs his duty, there should be no undiscovered grievances existing throughout Ontario. Unfortunately for the representatives of the U.T.A. plan their speeches were not permitted until the majority of the druggists had departed, and but scant deference was given them. If their plan is a good one, the executive are to have the privilege of saying so at a later date.

The completion of organization was the last, but not the least, feature of a most successful meeting, and the druggists departed, feeling that union meant success, and that success meant prosperity and a a reinstitution of the good old times.

The New President.

Mr. G. E. Gibbard, the gentleman selected as the president of the Ontario Society of Retail Druggists, is prominently connected with the retail drug trade of the city of Toronto, his chief place of business being on the corner of John and King streets, immediately opposite the Arlington Hotel. He is just in the prime of life, and, judging from appearances, capable of filling any position requiring inexhaustible energy and activity. His record as an active promoter of everything projected for the welfare of his fellow-druggists in the city has been such as to warrant most sanguine hope of results as the outcome of his leadership in the new and responsible position to which he has been elected.

Mr. Gibbard spent the early years of his life on a farm in the county of Durham, his father being one of the earliest settlers of the township of Darlington. He served his apprenticeship with H. J. Rose, one of the fathers of Canadian pharmacy, in the historic drug store at the corner of Yonge and Queen streets, established in 1850, and passed his examination as a licentiate in 1879, after attending Prof. Hayes' class. He carried on business in Galt and Whitby between the years 1880 and 1890, when he came to Toronto. His eldest brother died in 1875, while travelling for Elliot & Co., and another brother has recently accepted a position in the house of Lyman, Sons & Co., Montreal, after travelling for some fifteen years. The name of Gibbard has thus become well known throughout the retail drug trade, and if the gentleman about whom this is written performs the services which it is hoped can be performed under his guidance, the fame will not merely attach to the name, but to the personalty. Starting in office with the moral support and sympathy of over 800 druggists, the position is one which has never before been accorded a member of the trade, and the influence which can be judiciously wielded should be such as to evolve a new era of commercial advantage for the number mentioned, and for those who may succeed them. We say, hail! to the new president, and all hail! to his supporters.

Dalmatian Insect Flowers.

According to De Boisse, the active principle of *Pyrethrum cinerariæfolium* is a yellow resin soluble in ether, insoluble in water, and very slightly soluble in alcohol, carbon bisulphide, or fatty bodies. It is readily decomposed by alkalies. To extract the active principle the author exhausts the flowering tops of the plant with ether. The principle thus extracted is described as being of the color and consistence of virgin wax, with an apple-like odor. From the fresh plants the active principle may also be extracted by macerating the finely-chopped flowering tops with half their weight of ether, vaselin oil, colza, or petroleum, according as the product is intended for medicinal or agricultural use. The mixture, after trituration, is allowed to macerate for seven or eight hours. It is then strongly pressed, the resulting liquid allowed to stand, and the supernatant yellow, oily liquid separated from the watery portion, which is rejected. When prepared with vaselin oil, the oily solution is useful for human medicine, being a powerful insecticide. The solutions in colza or petroleum have a wide application in agriculture to destroy insect parasites, being applied direct to trees or shrubs. Emulsified with forty times their volume of soot water, they may be used for spraying the twigs and leaves. —*Rev. de Scient. Natur.; Pharmaceutical Journal.*

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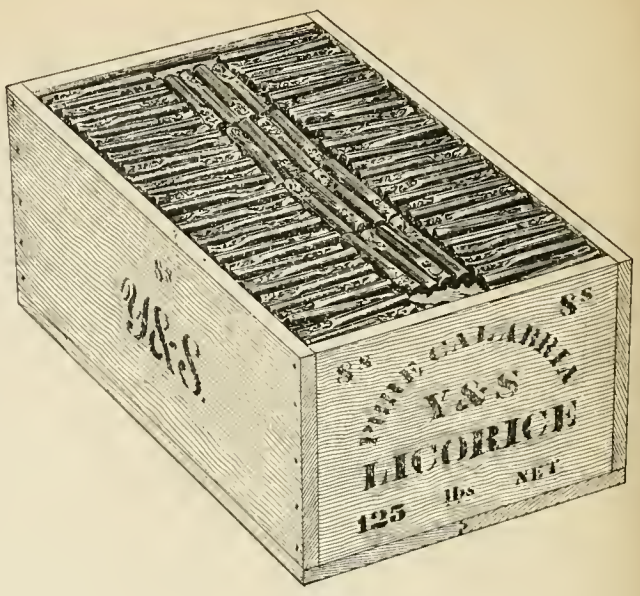

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Canadian Druggist

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Devoted to the Interests of the General Drug Trade and to the Advancement of Pharmacy

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INDEX TO VOLUME VII.

A

Antidotes for Poisons ... 18
Answers to Correspondents ... 26, 128, 154
An Antomatic Process for Aqua Chloroformi ... 54
Acetylene as an Illuminant ... 54
American Pharmaceutical Association, The ... 71, 81, 133
Amendment of the Pharmacy Act ... 73, 135, 199
Acknowledgments ... 74, 128
Airol ... 78
Antidiphtheritic Pastilles ... 91
Amateur Photographer ... 92
Alkaloids and Alkaloidal Salts ... 94
Action of Diastase on Cold Starch Paste, The ... 102
Advertising Story with a Moral ... 106
Advance in Camphor, The ... 129
American Pharmaceutical Association Trip from St. Louis to Denver, The ... 149
Agar—Agar in Glycerine Suppositories ... 150
Absolute Reliability ... 152
Art of Pharmacy, The ... 155
Accuracy ... 170
Asbestos Towels ... 193
Animal Oils and the New Pharmacopœia ... 198
Another Bismuth Drop ... 208
At the Toronto Exhibition ... 214
Awe Inspiring ... 244
Adulteration of Vanilla with Poisonous Substances ... 256
Animal Charcoal as a Pill Excipient ... 258
Ammonia Present in Corks ... 268

B

Business Notices ... 23, 47, 71, 95, 118, 142, 191, 214, 238, 261, 285
Books and Magazines ... 23, 47, 71, 95, 119, 143, 167, 191, 215, 239, 262, 286
British Columbia Notes ... 26, 51, 130, 147, 220, 267
British Columbia Pharmacy Legislation ... 51
Bacteriological Examination of Water, The ... 59
Bismuth Oxysalicylate ... 66
Boric Acid in the Solubility of Certain Phenols ... 74
Borax and Pharmacy ... 88
Boro-Salicylate of Soda ... 116
Bachelors of Pharmacy ... 125
British Columbia Pharmaceutical Association ... 149, 183
Best Forms of Quinine ... 153
Bicycle for Drug Stores, The ... 162
Be Prompt ... 170
Balsam of Tolu as a Pill Excipient ... 210
Bromide Solutions ... 213
Business and Scientific Education ... 254
Best and Most Lasting Label Paste, The ... 280
Bacteriological Studies for Belgian Pharmacists ... 282

C

Cash Discount ... 10
Camphor ...
Canada ...
Counsel the Council ... 25
Correspondence ... 26, 78, 100, 128, 152, 174, 197, 221, 283
Cough Drop Formulæ ... 43
Crystallization of Syrups and the Remedy ... 53
College of Pharmacy Examinations ... 76
Chances for Enterprising Druggists ... 80
Cinchona Gathering in Peru ... 90
Compound Syrup of Hypophosphites ... 90
Conceited Student ... 93
Colleges and Graduates ... 98
Colleges of Pharmacy ... 100
Creosote Syrup ... 100
Chemistry for the Pharmacist ... 103
Chemistry of Photography, The ... 107
Colors in Photography ... 117
Canada's Interest in the Metric System ... 121
College Council Election Contest, The ... 121
Colleges of Pharmacy ... 125
Coloring Photographs ... 129
Cod-Liver Oil ... 141, 178
Calcium Permanganate for Purifying Water ... 167
Cash and Credit ... 167
Concerning Ricine ... 174
Consideration of the Pharmacist of To-Day ... 175
Camphor Trade in Tainan ... 193
Cheap Druggist, A ... 201
College Announcements ... 201
Cut Prices in Hamilton ... 202
Casual Contributors ... 202
Canadian Pharmacist on African Affairs, A ... 207
Continental Method of Emulsification Applied to Every Day Dispensing, A ... 207
Camphor as a Germicide ... 211
Customs Decisions ... 214
Care of Stock, The ... 226
Colutic Acid ... 238
Cut Rate Problem in France ... 246
Cinchona ... 247
Cinchona Speculation ... 255
Candle Nut, The ... 261
Composition of Microbes ... 280

D

Druggists and Physicians ... 10
Disinfection of the Dust of Rooms, The ... 13
Demonstration of Wood Fibre in Paper ... 16
Drug Clerks' Column ... 26, 74, 170
Doctor Ridden ... 42
Details that will take Care of Themselves ... 46
Death of Mr. S. M. Burroughs ... 58
Drug Reports ... 24, 48, 72, 96, 119, 144, 168, 192, 216, 240, 264, 288
Do the One Thing Well ... 74
Determination of the Purity of Liquids ... 94
Dominion Pharmaceutical Association ... 106, 242
District Association Meeting ... 122
Does Advertising Pay? ... 134, 248
Druggist's Advice in Advertising, A ... 150
Does Pill Making Pay? ... 153
Dispensing Counter ... 159
Diligence ... 170
Do Unto Others, etc ... 170
Department Stores ... 172
Druggists and Photography ... 177
Druggists as Opticians ... 238
Devices for Filling Gelatine Capsules ... 239
Druggist the First Publisher, A ... 242
Death of James Douglas ... 244
Deadening Routine ... 254
Dalmatian Insect Flowers ... 278
Don'ts for the Pharmacist ... 280

E

Examination Questions—Ontario College of Pharmacy ... 6
Eau de Cologne Tipplers ... 9
Explosive Mixtures ... 18
Elecampane as an Antiseptic ... 19
Elegant and Brilliant French Polish ... 27
Examination of Urine, The ... 31
Exchange of Ideas ... 34
Enterprising Japanese Pharmacist ... 45
England ... 48
Estimation of Spirit of Nitroglycerin ... 62
Expensive Substance ... 96
Enlarged Faculty of the School of Pharmacy of Northwestern University, Chicago ... 101
Emulsions ... 103
Extra Pharmacopœia, The ... 106
Early History of Phosphorus, The ... 111
Election of Council of Ontario College of Pharmacy ... 145
Ethical Aspects of the Pharmacy of To-day ... 165
Effervescent Powders ... 186
Evolution of Pharmacy, The ... 248
Endorsement, An ... 250
Eucalyptene ... 255
Emulsion of Creosote with Milk for Rectal Injection ... 260

F

Felicitatem Adversus Gradus ... 5
Formulary ... 19, 43, 67, 91, 115, 139, 163, 187, 211, 235, 259, 282
Frigotherapy ... 44
Future City Druggist, The ... 53
Filtering Turbid Liquids ... 150
Finely Balanced Scales ... 193
Fraud in Ginseng ... 232
Free Optical Course ... 242
French Pharmacy and Grocers ... 249

G

Good Line, A ... 82
Glycerine at $19 a Ton ... 112
Good Business Maxims ... 122
Ginger Ale and its Flavorings ... 125
Good Advertisement, A ... 182
Glossing Prints ... 189
Glycerin Ovules and Suppositories ... 218
Gutta Percha from Dried Leaves ... 218
Governmental Scrutiny ... 249
Glaring Nuisance and How to Abate it ... 257

H

How to Join the American Pharmaceutical Association ... 81
How to Make the Business Pay ... 87
How to Succeed, Though a Druggist ... 166
Handling Customers ... 246
Hints in Stock-taking ... 266

I

Important Articles ... 25
Improved Syrup of Iodide of Iron ... 78
Important Decision ... 89
Inexpensive Photographic Tray ... 117
Impure Drugs ... 145
Influence of Trade Journals ... 201
Improved Elixir Aromatic ... 261
Impressions of the Meeting of the O.S. of R.D. ... 278

J

Justice to a Manufacturing House ... 58

K

Kola Nut, The ... 210

L

Linseed Oil ... 24
Local Remedy for Diphtheria ... 30
Little Things ... 40
Let Us Reason Together ... 40
Liquefaction of Hydrogen, The ... 88
Luteol, A New Indicator ... 129
Lysolum Bohemicum ... 166
Look at the Practical ... 170
Losses and Leaks in the Drug Business, and how they may be Prevented ... 186, 208
Paints and Oils ... 189
Lofotan Islands and their Principal Products ... 203
"Lodge Doctor," The ... 218
Loaded Sponges ... 256
Last Straw, The ... 270
Lead Ointment without Fat ... 288

M

Montreal College of Pharmacy ... 27, 149, 199
Montreal Notes ... 34, 75, 123, 171, 195, 243, 267
Medical Practitioners in Austria ... 40
Manual of Organic Materia Medica and Pharmacognosy ... 50
Manitoba Notes ... 75, 99, 123, 147, 171, 219, 243
Mutually Interested ... 82
Metric System in England ... 117
McDowell & Co., Ltd ... 130
Model Drug Store ... 136
Missing Link Finally Found, The ... 142
Metric System ... 202
Manufacture of Surgical Dressings ... 230
More Price Cutting ... 242
Magnesium Salicylate ... 255
Mica ... 256
Masticatories ... 260
Mr. Gladstone's Message to Young Men ... 261

N

New Saccharine Patent, A ... 9
New Year, The ... 10
New Surgical Dressing, A ... 24
Nova Scotia ... 27, 99, 124, 148, 195, 219
Nitropentacrythrite and a Smokeless Explosive ... 46
New Ointment Base, A ... 67
New Remedies and Chemicals ... 83
Northwest Territory Pharmaceutical Association ... 114

New Patents ... 138, 171
New Officers, The ... 17
Notes on the Commerce in Vegetable Oils ... 190
New Container for Acids, et ... 248
Neatness in a Pharmacy ... 249
New Artificial Camphor is Made ... 253
New Remedies ... 255
New Acid Proof for Boxes, etc ... 256
Notes on Soaps ... 257
New Handkerchief Extracts ... 259
New President, The ... 278
Notes for Bicyclists ... 281

O

"Observation Sheets" of the American Pharmaceutical Association ... 8
Ontario College of Pharmacy ... 97, 218
Origin of Pharmacy, The ... 14
Oil Emulsions ... 30
Ontario College of Pharmacy Council Meeting ... 35, 179
Origin of the Term Anæsthetic ... 42
Ontario College of Pharmacy Dinner ... 56
Opium Trade of Asia Minor, The ... 57
Ownership of the Prescription, The ... 58
Ointments of the New Pharmacopœia ... 105
On the Determination of Morphine in Opium ... 113
Opium Yield ... 141
Oleate of Ammonia as a Cleansing Agent ... 160
Output of Gum Arabic in the Soudan, The ... 182
Oil from Rubber-Tree Seeds ... 189
Ontario Society of Retail Druggists ... 271
Of what Use is Botany to the Pharmacist? ... 280

P

Perfumes, and Formulæ for their Manufacture ... 11
Pyrogallate of Bismuth ... 15
Pharmaceutical Analysis ... 20, 30
Pharmaceutical Association of the Province of Quebec ... 27, 51
Practical Hints on Pharmacy ... 29
Publishers' Notices ... 34
Passing of the Tablet Fad, The ... 42
Pharmacopœia, The ... 49
Phosphorous Pills ... 53
Perfumed Moth Camphor ... 53
Points on the Making of Pills ... 62
Peyotline, A New Alkaloid ... 66
Purification of Ether ... 67
Patent Medicines in Japan ... 74
Primo Syringe, The ... 81
Physicians' Supply Houses ... 89
Proposed Regulation of Patents ... 94
Pharmaceutical Examinations ... 102, 170, 218, 242
Polyglot Apothecary ... 102
Public Misuse of Carbolic Acid ... 113
Paraffin as a Secondary Ingredient in Pomades ... 113
Plastic Gelatins ... 114
Pharmaceutical Notes ... 116, 137, 160, 185, 209
Pharmacopœia Suggestions ... 131
Prescription Department ... 134
Paris Green ... 141
Photo Ceramics; The Fashion for 1895 ... 143
President's Address ... 146
Pharmaceutical Association, District No. 10 ... 151
Perseverance ... 170
Practical Value of Pharmacognosy ... 177
Palatable Medicine ... 185
Prostitution of Position ... 193
Practical Optics for Chemists ... 205
Powdered Lime for Recovering Photo Waste ... 212
Pumice Stone Industry of Lipari Islands, The ... 224
Progress in Price Cutting ... 241
Provincial Druggists ... 244
Pleasant Flavored Solutions of Ichthyol ... 248
Pharmacy in Italy ... 248
Pharmacy Law in New Zealand ... 249
Progress of Chemistry, The ... 252
Phenacetin Smuggling ... 253
Phenol Sulphoricine ... 254
Points in Dispensing ... 266
Prince Edward Island ... 3, 27, 76, 93, 124, 171, 219, 243, 267
Pharmacy in England ... 4, 28, 52, 77, 101, 127, 151, 173, 194, 222, 245, 269
Pharmaceutical Testing ... 268
Pharmacy in Mexico ... 270
Pharmacy Abroad ... 16, 114, 148, 161, 213, 237
Photographic Notes ... 20, 45, 68, 92, 117, 140, 164, 188, 212, 236, 260, 283
Practical Formulas ... 279
Practical Hints on Advertising ... 285
Professor Winchell's Paste ... 286

Q

Qualifications of an Apprentice, The ... 78
Quebec Pharmaceutical Association ... 143, 199
Queries and Answers ... 221
Questionable Experiment, A ... 226

R

Review of the Year 1894 ... 1
Result of Co-operation, The ... 34
Reaction of Phenacetin ... 46
Rules for the Guidance of the Dispensing Clerk ... 53
Reaction of Pure Ether ... 71
Resemblance between the Reactions of the Alkaloids and Acetanilid ... 81
Rhubarb ... 104
Retrograde Movement, A ... 169
Relative Volume of Powders ... 173
Reflection ... 202
Recent United States Patents ... 233
Relation of Chemistry to Civilization, The ... 251

S

Scientific Discovery from Japan, A ... 16
Salubrine ... 18
Spanish Cork Industry, The ... 46
Sodium Carbonate ... 56
Simple Test for Common Drugs ... 63
Stability of Sublimate Solutions, The ... 66
Safeguards Against Deterioration of Stock ... 69
Should Doctors Dispense? ... 76, 103
Sealing Wax ... 78
Short History of Scales and Weights, A ... 79
Show-Bottle Colors ... 93
Suggested B. P. Emulsions ... 100
Successful Firm, A ... 105
Severe Case, A ... 110
Substitute for a Funnel ... 113
Sulphides of Zinc ... 115
Salts of Potash ... 118
Seasonable Request to Druggists in Sheep Districts ... 119
Self-Control ... 129
Smuggling Drugs ... 130
Some New Formula for Galenicals ... 142
Supplying Department Stores ... 154
Some Standard Stock Solutions ... 188
Starch as a Mountant ... 189
Side Lines for Druggists ... 201, 220
Substitute for Natural Sulphuretted Waters ... 224
Safeguards Against Adulteration ... 225
Some of the Trials of Druggists ... 232
Students in Pharmacy ... 242
Soap Berry, The ... 256
Some Notes about Glass ... 261
Sterilizing Vegetable Oils ... 261
Study This Out ... 262
Stearates ... 277
Substitutes for India Rubber ... 281

T

Trade Notes ... 3, 27, 51, 75, 99, 123, 147, 171, 195, 219, 243, 267
Three Creosote Preparations ... 14
Test for Wintergreen Oil ... 16
Thermometers and Thermometer Testing ... 18
To Distinguish Between Lemon and Orange Peel ... 19
To Meet Cutting in Prices ... 39
Tablet Triturate ... 41
Tablets of Wine ... 44
Test for Acetanilid in Phenacetin ... 5
To Hide the Taste of Chloral ... 70
Therapeutic Serums ... 116
Troches of Phosphorated Chocolate ... 124
Toronto University ... 126
Tariff Changes ... 141
Test Your Glycerin ... 187
Turpentine and Cholera ... 170
Transition Period, This ... 194
Trend of Pharmacy, The ... 199
Tripoli Sponge Fishery ... 200
To Casual Contributors ... 202
Time for Action ... 217
To Correct Abuses ... 217
Trade Journal Advertising ... 220
Taka Diastase ... 223
Transient Readers ... 226
Tried Remedy, A ... 238
To Numerous Correspondents ... 242
Treatment of Customers, The ... 243
Thought Photography ... 284
Test for Chlorates ... 284
Treatment of Customers ... 369

U

Uniform Legislation ... 49
University Examination Questions ... 157

V

Valued Apprentice, The ... 74
Veterinary Counter Remedies ... 148
Veterinary Medicine and the Pharmacist ... 164
Various Consistent Lubricants ... 189
Valkyrie's Pilot ... 201

W

Wants, For Sale, etc ... 40, 88, 112, 184, 208, 232
Warning Cork for a Poison Bottle, A ... 41
Wintergreen Oil ... 66, 117
Wake Up ... 81
What Next? ... 82
What Makes the Successful Pharmacist? ... 132
Window Dressing for Druggists ... 134
Why Such Indifference? ... 154
What is the Association Doing Now? ... 178
Weight of Drops of Various Liquid Medicaments ... 196
What We Are ... 225
What the Pharmacist Should Know About Certain Poison Accidents ... 227
Who Owns the Prescription? ... 239
Wholesalers' Grievances ... 242
Wholesale Drug and Patent Medicine Association ... 244
What will the Result Be? ... 265

FORMULARY.

Acid Phosphate ... 115
Adhesive ... 225-235
Almond Toilet Paste ... 19
Almond Formulæ ... 159
Ammonium Oleate ... 139-160
Antiseptic Dressing for Wounds ... 67
Aqua Carminativa ... 142
Aqua Chloroformi ... 185
Axle Greases ... 100

Banana Extract (Fountain) ... 154
Bath Tablets, Effervescent ... 259
Bedbug Exterminator ... 19
Bicycle Paint ... 235
Blackberry Brandy ... 26
Blacking ... 187
Boro-Salicylic Glycerole ... 115
Boric Acid, Concentrated ... 185
Boro-Salicylate ... 43
Bougies ... 159, 163, 211
Bronze Powder ... 19
Buckthorn Fluid Extract ... 186
Bunions, For ... 226
Burns, For ... 135, 259
Butter of Phosphorus ... 67

Camphor, To Powder ... 159, 209
Camphor Ice ... 91
Castor Oil Comfits ... 163
Castor Oil Emulsion ... 139
Cement Acid ... 163
Caoutchouc ... 163
Cycle Tires ... 136
Metals on Glass ... 43
Porcelain Letters ... 43
Cerules ... 185
Chapped Hands, For ... 43, 67
Chilblains, Ointment for ... 163, 259
Chloroform Ointment ... 103
Cholera, Turpentine in ... 170
Cleansing Compound ... 139
Cloth Cleaners ... 19, 130, 163
Cod-Liver Oil, To Flavor ... 115
Cod-Liver Oil, Aromatized ... 67, 211
Cod-Liver Oil Emulsion ... 14
Cold Cream ... 163, 185
Colic (Horses) ... 148
Copper, To Varnish ... 67
Copying Ink ... 19
Copying Pads ... 19
Cough Drops ... 43, 44
Cracked Heels, Ointment for ... 148
Cream for Chapped Hands ... 43
Creme Celeste ... 19
Creosote Emulsions ... 14
Pill Mass ... 159, 187
Syrup ... 160
Currie Powder ... 221
Camphor Ices ... 282

Dressings, Antiseptic ... 67
Dandruff Pomade ... 187, 282
Dentifrices ... 130, 235
Depilatories ... 43, 139
Dogs' Cough Medicines ... 148
Depilatory Soap ... 282
Eau de Belot ... 235
Eau de Lys ... 187
Eczema, Ointments for ... 163
Effervescent Powders ... 186
Bath Tablets ... 259
Quinine Mixture ... 259
Elastic Stockings, To Clean ... 215
Elixir Aromatic ... 261
Calysaya ... 142
Kola ... 186, 259
Emulsions, Castor Oil ... 139
Cod-Liver Oil ... 14, 100, 211
Creosote ... 14
Ergotæ Saline Liquor ... 226
Extracts for Soda Fountain ... 154

Ferri Cit. Effervescens ... 163
Fireproof Paint ... 211
Fixateur Hongroise ... 187
Fly Blister ... 148
Freckles, To Remove ... 43
Fruit Extracts (Fountain) ... 154
Fruit, Saline ... 186
Fumigating Paste, etc ... 211
Furniture Polish ... 139, 160, 211

Gargle Tablets ... 259
Ginger Beer Powder ... 186
Glassware, To Clean ... 160
Glycerine of Cucumber ... 187
Glycerine of Iodide of Iron ... 19
Glycerine of Rosemary Hair Wash ... 19
Glycerinum Saponatum ... 235
Glycerole of Coca ... 235

Grease for Ointment ... 148
Grease Paints ... 187
Grease Spots, Pencils for ... 163
Guaiacol Pills ... 209, 210
Guaiacol Wine ... 67

Hair Wash ... 19
Harnessmakers' Wax ... 19
Harnessmakers' Soap ... 163
Headache Powders ... 259
Hectograph ... 19
Horehound Candy ... 43
Horse Medicines ... 148
Hoven in Cattle ... 148

Ichthyol, To Disguise ... 245
India Rubber Cement ... 163
Inks ... 19, 115, 139
Inks for Glass ... 139
Insecticide ... 139
Insect Sting, Remedy for ... 139
Iron, to Color Black ... 115

Japanese Lacquer ... 235

Kalodant ... 91
Kola Elixir ... 186, 257
Kola Wine ... 257
Kolapepton Tablets ... 91

Label Varnish ... 91
Lanolin Rubber ... 91
Laundry Powder ... 186
Lemonade Powder ... 186
Licorice Lozenges ... 115
Liniments ... 142, 148
Liquid Glue ... 115, 187
Liquor Anthracis ... 235
Litmus Tincture ... 91
Lubricants ... 190

Matches ... 235
Mercurial Soap ... 142
Milk of Cucumber ... 211
Mouthwash, Antiseptic ... 235
Montpelier Cough Drops ... 282

Nails, The, To Whiten ... 91
Neuralgic Powders ... 259
New Wood Varnish ... 282

Oils, To Preserve Certain ... 259
Ointments for Burns ... 185
  Chilblains ... 163, 185
  Cooling ... 163
  Eczema ... 163, 185
  Fœtid Perspiration ... 185
  Mercurial ... 163
  Psoriasis ... 163
  Uretbritis ... 163

Paints ... 211
  Bicycle ... 253
Paste for Labels ... 43
  Varnished Surfaces ... 67
Patent Leather Dressings ... 67
Pencils, Salve and Paste ... 211
Perfumes ... 11, 139, 259
Perspiration, Fœtid ... 185
Phosphate Iron Calcium ... 209
Phosphorus Pastilles ... 187
Phospho Glycerate Solution ... 91
Phospho Glycerate Syrup ... 91
Pil Cochia ... 26
Pil Mass ... 159
Pomade Hargroise ... 187
Psoriasis, Ointment for ... 163
Pyroocylin, Soluble ... 145
Putty, To Soften ... 187

Quinine, To Disguise ... 172
Quinine, Mixt. Efferves ... 259

Sachet Powder, Lavender ... 91
Saddlers' Wax ... 61
Salicol Cream ... 211
Shampoo ... 160, 139
Shellac, Colorless Sol ... 91
Show Bottle Colors ... 93
Soda Fountain Extracts ... 154
Smelling Salts ... 91
Spirit of Lavender Compound ... 142
Steel, to Color Black ... 115
Syrup Cal. Phosphoglycerine ... 91
Syrup Codeine ... 142
  Creosote ... 101
  Ferri Iodid ... 91, 78, 187
  Ferro-Mangani Saccharati ... 187
  Phosphates é Cocaine ... 235
  Rhubarb ... 43
Syrups, To Preserve ... 170

Tan and Freckles ... 43
Tapeworm Pills ... 163
Tar Liquor ... 163
Tincture Litmus ... 91
Tincture Capiput Compound ... 235
Toilet Vinegar ... 187
Tolu Solution, Essence of ... 67
Tooth Paste ... 167
Typewriter Ink ... 115

Universal Polish ... 43

Vanilla Extract, Fountain ... 154
Varnish for Labels ... 91
Varnish for Copper ... 67
Vesciant ... 235
Veterinary Remedies ... 148
Vinaigre Cosmetique ... 187

Wart Remover ... 235
Waterproof Paint ... 211
Wax, Saddlers' ... 19
Wine Creosote ... 14, 11
Wine Guaiacol ... 67
  Kola ... 259
Wash for Removing Lice from House Plants ... 282

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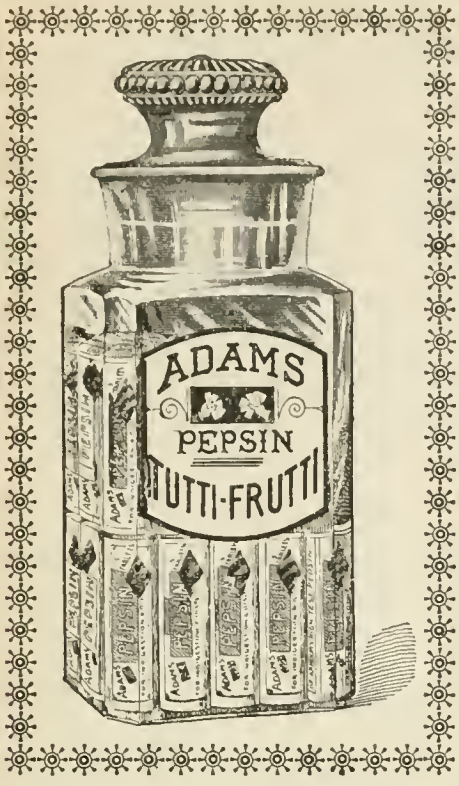

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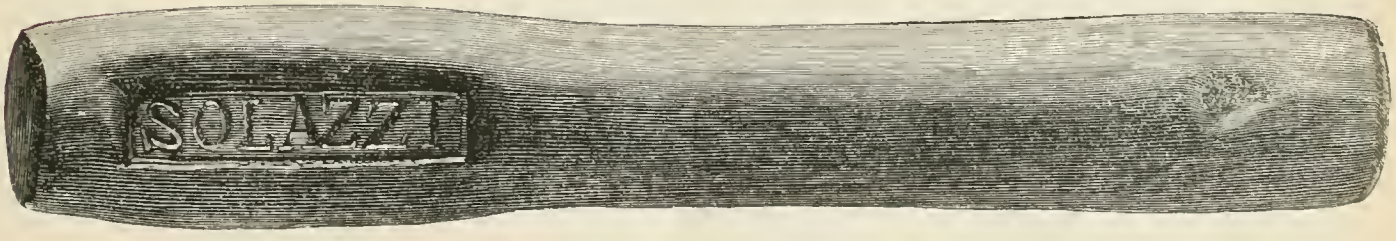

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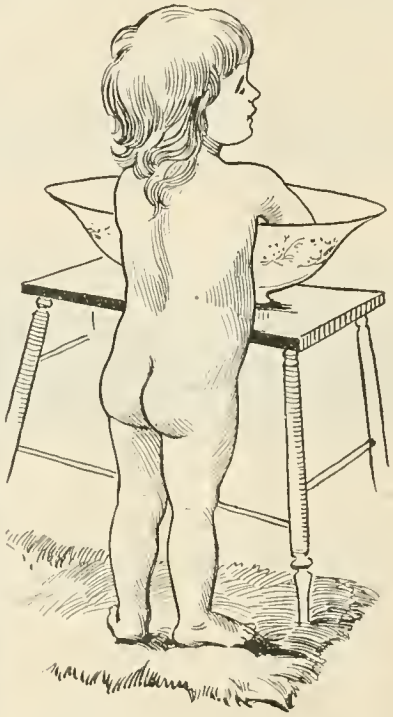

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Practical Formulas.

BY FRANK EDEL.

PREPARATION OF AROMATIC WATERS.

With every revision of the Pharmacopœia from that of 1860 down, some change has been made in the official directions for making the aromatic waters. Magnesium carbonate was ordered in the 1870 edition to be dropped for absorbent cotton in the edition of 1880. In the last revision the use of precipitated calcium phosphate is prescribed. Of the three the calcium is certainly best adapted for the end in view, yet every pharmacist who has had occasion to keep aromatic waters on hand has experienced more or less trouble on account of their proneness to go wrong. The writer has experienced considerable annovance from this source, and he determined about a year ago to make some experiments with a view to overcoming the evil.

Waters like cinnamon, peppermint, etc., were found to keep perfectly if distilled with an excess of oil, and allowed to remain in contact with the excess until ready for use. The excess of oil floats on the surface of the water, the clear portion of which can be drawn from below by means of a siphon as wanted. Waters prepared in this way are much superior to those made by the U. S. Pharmacopœia process, besides yielding better keeping waters.

ETHEREAL FLAVORING EXTRACTS.

In the preparation of some extracts the formiate of linalyle* will be found useful, as the following formulas will show :

Extract Apricot.

Linalyle formiate	90 minims
Glycerin	1 ounce
Amyl valerianate	4 drams
Alcohol	11 ounces
Fld. extract orris	1 ounce
Water, q. s. ad	1 pint

Extract Apple.

Glycerin	1 ounce
Amyl valerianate	4 drams
Linalyle formiate	45 minims
Fld. ext. orris	1 ounce
Alcohol	11 ounces
Water, q. s. ad	1 pint

Quince Extract.

Fld. ext. orris	2 ounces
Pelargonic ether	1½ ounces
Linalyle formiate	90 minims
Glycerin	2 ounces
Alcohol	70 per cent. to 3 pints

Peach Extract.

Linalyle formiate	120 minims
Amyl valerianate	8 drams
Fld. ext. orris	2 ounces
Œnanthic ether	2 drams
Oil rue (pure German)	30 minims
Chloroform	2 drams
Glycerin	2 ounces
Alcohol	70 per cent. to 3 pints

SACHET POWDERS.

Heliotrope Sachet.

Among sachet powders there is none that commands a wider popularity than heliotrope powder. The following formula yields an excellent article :

Orris, in fine powder	7 ounces
Tonca bean, ground	4 drams
Rose leaves ground	2 ounces
Tincture musk	2 drams
Oil rose	6 drops
Oil bitter almond	3 drops
Heliotrope	1 dram

Mix intimately ; place in a tightly covered vessel for several days to blend. The tincture of musk is quite expensive and not always at hand ; but the writer has found the artificial musk, known as musk baur, to be an excellent substitute for the pure musk, and of course a much cheaper article. The tincture can be prepared by dissolving 2 drams of musk baur in 1 pint of deodorized alcohol.

The powder made by the foregoing formula, while it yields an excellent preparation, is, at the same time, produced for less than one-half the price usually asked for similar goods. The odors may be varied to suit, as the following formulas show :

Violet Sachet Powder.

Orris, in fine powder	3 pounds
Essence of bergamot (1 to 9)	30 minims
Oil almonds	20 minims
Oil rose	20 minims
Tincture of musk	1 ounce
Cassia flowers	4 ounces

Rose Sachet Powder.

Orris, in fine powder	8 ounces
Sandal wood (No. 40 powder)	4 ounces
Rose leaves, coarse ground	24 ounces
Patchouli (No. 40 powder)	2 ounces
Tincture musk	2 ounces
Rose geraniol	1 dram

The rose geraniol serves the purpose of otto of rose in the powder, besides being less expensive. It is to be preferred for this purpose to rose geranium.

Ylang Ylang Sachet.

Rose leaves, coarsely ground	1 pound
Cassia buds	1 pound
Allspice	4 ounces
Tonca bean	2 ounces
Vanilla bean	2 ounces
Orris, in fine powder	3 pounds
Rose geraniol	60 minims
Tincture musk	2 ounces
Oil ylang ylang	2 drams

IMPROVED LITMUS PAPER.

A good litmus paper is often a difficult article to obtain, as any one can testify who has had occasion to use that sold by dealers. Not only is this so, but it is not always easy with ordinary litmus to make a paper superior to the paper usually sold by dealers. If, however, the pharmacist will go to the trouble of purifying the litmus, and follow the directions of the standard text-books for the preparation of purified litmus, he will experience no trouble in preparing a satisfactory paper. The writer would recommend the purchase of Merck's chemically pure litmus and exhaustion with alcohol according to the process of the U.S. Pharmacopœia. Paper prepared from this will be found extremely sensitive and much superior to the paper ordinarily sold.

A PASTE DENTIFRICE FORMULA.

There is always a demand for a good tooth paste. Most of the published formulas are faulty in that the product is prone to separate, allowing the softer portions to squirt from the tube on the slightest pressure. Glycerin is recommended in most formulas as a softening agent, but it scarcely ever proves satisfactory unless a small amount of gelatin is incorporated with it in the first place. The formula found most satisfactory by the writer is as follows :

Prepared chalk	5 ounces.
Magnesia carbonate	2 drams.
Powdered orris root	1 ounce.
Thymol	30 grains.

Mix thoroughly and moisten with the following :

Gelatin	2 drams.
Glycerin	5 ounces.
Water	1½ ounces.

Moisten the gelatin with water and allow to stand for half an hour, then add the glycerin. If the paste turns out too thick it can be diluted by adding more glycerin. This liquid will be found excellent for moistening any of the combinations used for pastes.

IMPROVED EXTRACT VANILLA.

It is often difficult, in preparing extract vanilla, to reduce the beans to a suitable fineness for extraction. To those who find it necessary to make large quantities of this extract the writer would recommend the use of a small sized meat chopper, as made by the Enterprize Manufacturing Company. This machine cuts the bean in such a way as to permit of extracting the mass by percolation. In preparing the extract the writer has never found it necessary to use tonca beans. When a cheap article is demanded an extract made from the Tahiti bean answers all requirements. The Tahiti bean resembles the vanilla bean of Mexico ; but, while very similar in flavor, is easily distinguished from the latter by the odor. The Tahiti bean is sometimes sold for short length vanilla. The Tahiti is best used mixed with an equal weight of Mexican vanilla. The following formula yields a very satifactory preparation :

Tahiti vanilla beans	8 ounces.
Mexican vanilla, cut	8 ounces.

Grind the two beans in the meat chopper already described, and percolate with diluted alcohol to 2¼ gallons, adding one quart of simple syrup. No added coloring is necessary with extract made as above.

COMPLEXION WASH.

An excellent lotion for the complexion can be made by the following formula :

Resorcin	2 drams.
Magnesium sulphate	2 drams.
Zinc sulpho-carbolate	2 drams.
Glycerin	3 ounces.
Cologne water	6 ounces.
Mucilage of quince (½ oz. to the pint)	1 pint.
Water, to	2 pints.

Make a solution. This furnishes a superior preparation for freckles and roughness of the skin, and is to be preferred to many of the compounds so extensively advertised by leading "Beauty Doctors."—*American Druggist.*

*This liquid has an aroma resembling petit grain oil and bergamot oil.

Don'ts for the Pharmacist.*

The following "Don'ts," I trust, may be of interest :

Don't employ an incompetent pharmacist or help of any kind.

Don't employ a good pharmacist and pay him poor wages. He will soon become indifferent to your interests.

Don't overwork him.

Don't make a slave of him ; he requires rest and fresh air.

Don't hurry him from his meals, lest he gets dyspeptic and becomes cranky.

Don't talk on business matters with him during the time he is compounding a prescription.

Don't send him off on some errand during the time he is engaged dispensing, or to wait on a customer, and attempt to finish the prescription yourself.

Don't stock your prescription case with cheap and impure drugs or chemicals.

Don't keep chipped graduates, cracked mortars, or broken spatulas to compound prescriptions with.

Don't send medicines out unless the name and address is plainly and properly written on the wrapper.

Don't permit an assistant to compound a prescription that requires careful and delicate manipulation.

Don't, if you value the life of your fellow-man, your business, the reputation of the physician, or the sanctity of the prescription case, employ a dispenser who is an intemperate. He dare not be trusted.

DON'TS FOR THE DISPENSING CLERK.

Don't attempt to dispense a prescription unless you are fully and perfectly competent to do so.

Don't dispense a prescription until you have carefully read it over no less than twice.

Don't attempt to dispense a prescription if there is any doubt in your mind about any of its ingredients.

Don't dispense any one's Fluid Extracts when Squibbs' or some other make is designated.

Don't take down a bottle from the shelf unless you are positive it is the one wanted.

Don't, while compounding a prescription, leave the same unfinished to wait on a customer.

Don't commence compounding a prescription till the previous one has been properly numbered and labelled.

Don't attempt to correct a prescription, or make any substitution, till the prescriber has been seen.

Don't permit the customer or your friends behind the prescription counter, nor enter into conversation with them whilst you are at work on a prescription.

Don't attempt to weigh anything on the prescription scales until the pans have been well and thoroughly cleaned.

Don't think you are infallible and cannot err, because, perchance, thus far you have not.

*From a paper read by Dr. E. Bories at meeting of Washington Pharmaceutical Association.—(*Phar. Digest*).

In conclusion, let me add : Be cautious, temperate, painstaking, and diligent in your work at the prescription counter, never for one moment losing sight of the fact that a human life is in your hands, and you are the custodian.

Of What Use is Botany to the Pharmacist ?

The dislike or indifference which many students of pharmacy entertain toward the study of botany leads them to question the wisdom of devoting a considerable proportion of the college course to this branch ; and many a practical druggist asks what use will ever be made of botany in the drug business.

To the average retail druggist botany is of no use whatever. Buying and selling in the customary way does not demand the slightest idea of what botany is. The druggist can go off accepting, using, and dispensing plant drugs received by him from the jobber, with the greatest ease ; for can he not read the label on each package ? What difference does it make to him whether digitalis is a leaf, or a root, or a seed, if the label is only plain enough ? It is true the jobber does not know any more about it than the retail druggist ; but the clerk in the jobbing house can read as well as the druggist. Besides, it is not the druggist's fault if the jobber makes any mistake, unless, indeed, the law makes the druggist responsible for the genuineness of every drug he dispenses.

As we understand it, the law *does* make every licensed pharmacist personally responsible for the identity, quality and strength of every medicinal substance sold or dispensed in his store. Within our own personal experience it has happened that when "Cannabis Indica" was ordered, the jobber furnished *Apocynum cannabinum* and labeled it "Indian Hemp," and we have seen several other similar instances of mistaken identity in the vending of plant drugs.

"But," says the druggist, "I don't make my own fluid extracts and tinctures, and, therefore, I have no use for any crude drugs except the most common ones, which I know at sight from experience. As I buy all my preparations, there is no reason why I should know anything about botany."

But is such reasoning correct, safe, or honest ? Of course not. The retail druggist who cannot himself verify the correctness or detect a blunder in the labeling of a package containing a vegetable drug, whole or powered, should never be permitted to sell or dispense any such drug. That is plainly one of the objects of the pharmacy laws.

Every pharmacist sells, uses or dispenses many vegetable drugs, both whole and powdered, whether he makes his own liquor and solid extracts or not. A good practical knowledge of structural botany is absolutely necessary to any intelligent examination of many of the vegetable drugs, and no one can be an intelligent and safe practitioner of pharmacy without that knowledge.

Every well educated pharmacist knows how intimate is the analogy between the botanical and pharmacodynamic classifications of plant drugs ; he knows the importance of micro-botany as an aid to their identification and valuation ; he realizes that a knowledge of the structure of the drug often throws valuable light upon the pharmaceutical treatment it requires ; and if he possess that self-respect and conscience which scientific education tends to impart, he will not deny that a knowledge of botany is a necessary part of a thorough course of pharmaceutical education, nor will he claim to be an accomplished pharmacist without a knowledge of pharmaceutical botany.

But he who is ignorant of either botany or pharmacy, or both, is necessarily unable to appreciate the value of botanical knowledge to the pharmacist.—*Bulletin of Pharmacy.*

Composition of Microbes.

E. A. Schweinitz and M. Dorset *(Journ. Am. Chem. Soc.)* have examined microorganisms to ascertain their proximate and ultimate composition. Tubercle bacilli were found to contain cellulose, together with palmitic and arachidic acids ; on the other hand, the glanders bacillus appeared to contain no cellulose, whilst the acids present were oleic and palmitic. The germs were cultivated on the same media, and, with the exception of the nitrogen, there seemed to be but little variation in their composition, when the medium was varied. The results of elementary analyses of three forms (the two mentioned and the bacillus of swine plague) showed marked differences in the proportions of nitrogen, carbon, hydrogen, and ash present.

The Best and Most Lasting Label Paste.

At the *Konigliche Lehranstalt fur Obst- und Weinbau* at Geisenheim, recently, a series of experiments were undertaken to determine which, if any, of the ordinary additions to pastes and mucilages for bottle labels prevented fermentation without injuring the adhesive qualities of the paste. Among the antiferments under observation were salicylic acid, boracic acid, thymol, oil of cloves, etc. Without going into minutiæ, it was found that dextrin, impregnated with from .3 to .5 per cent. of thymol, produced a paste that has thus far proved all that could be desired.

For sleeplessness trional in doses of from 0.5 to 4 grammes has been recommended.

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Sewing Machine Oil, in 2 oz. bottles, $5.00 per gross.
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Boiled Linseed Oil, in 5 gal. tins, 62c. per gal.
Pure Neatsfoot Oil, in 5 gal. tins, 90c. per gal.
Olive Oil, Union Salad, 5 gal. tins, 90c. per gal.
Olive Oil, for table, Pure Italian, $2.00 per gal.
Sperm Oil, pure, in 5 gal. tins, $2 per gal.
Castor Oil, Calcutta, cases, 6½c. per lb.
" " 5 gal. tins, 7c. per lb.
" French, 5 gal. tins, 7½c. per lb.
Sperm Candles, 36 lbs. to case, 10½c. per lb.
Paraffine " " " 11½c. per lb.
Spirits Turpentine, pure, by the barrel, 40c. per gal.
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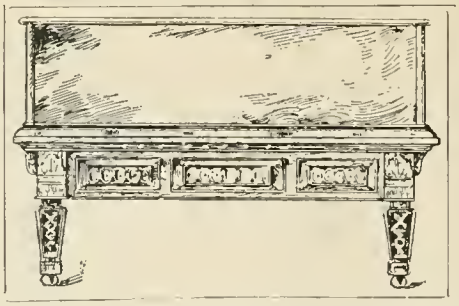

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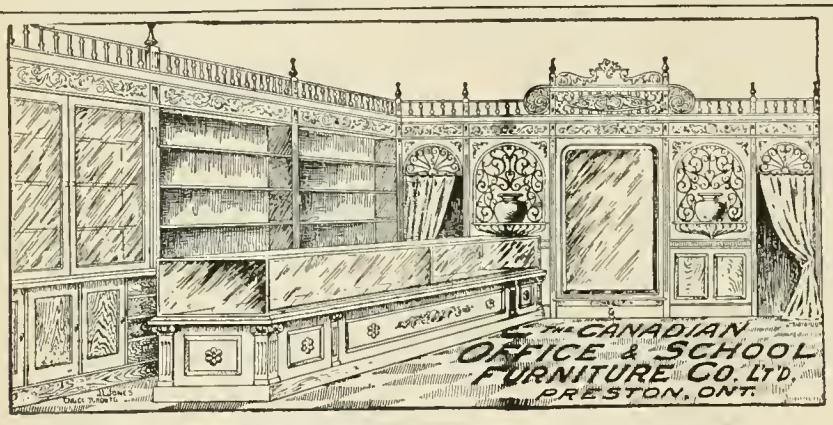

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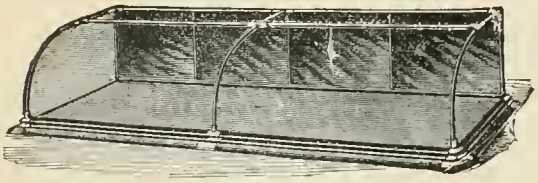

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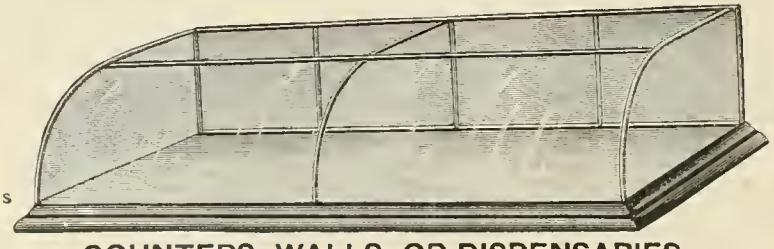

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Notes for Bicyclists.

ADVICE TO BICYCLISTS. — Rocheblave gives to bicyclists the following good advice from a medical standpoint: (1) No one should ride until after an examination by a physician. This examination should be made both before and after a walk or run, for some cardiac lesions only manifest themselves after a state of fatigue. (2) Ride no faster than twelve kilometers an hour. (3) As far as possible, guard against the desire to ride any faster. It is very difficult not to give way to the "delirium of swiftness." With a light machine on a good road an amateur may easily make twenty-five kilometers an hour. This is too much, for the pulse is increased to 150, even at fourteen and sixteen kilometers per hour.—*Meyer Bros'. Druggist.*

CARE OF THE WHEEL.—Cyclists do not always seem to realize how much the durability of a bicycle depends upon the care which it receives. By this I mean not only keeping it clean, which is necessary for appearance sake, anyway, but the using of some judgment as to the way in which it is ridden. Just as on horseback, a heavy man, if he rides well, will not tire his mount so quickly as a lighter, inexperienced one, so an expert cyclist brings far less strain upon the machine than a careless rider, whose weight may not be nearly so great. If you have a rough piece of road to traverse, car tracks to cross, or come to any place where the riding is at all bad, do not rest your dead weight in the saddle, but rise a little and ease your machine, bearing harder than usual upon the pedals. Careful riding does not imply a slow pace. Those who make very fast time are often the most prudent and watchful cyclists. The outlook for obstacles becomes habitual, almost automatic, after a while, and saves much hard wear and many a breakdown. —*Weekly Siftings.*

CLEANING THE WHEEL.—To clean the bicycle chain, remove it from the machine and soak it in turpentine for several hours, then clean it with a brush, as an old tooth brush, link by link, and after this dip it in clean kerosene oil and dry thoroughly with cheesecloth. See that both sprocket wheels are thoroughly cleaned and then replace the chain. Do not use oil on the chain, as it produces a clicking sound. Use graphite or any of the various chain lubricators now on the market.

The best way to clean the bearings of a wheel is to take them out and then remove all dirt and rust from them. Kerosene may be used to remove the gritty substances from the bearings. The kerosene should be poured into the oil well, the wheel being kept revolving constantly. Old clothes should be worn at this job, as the kerosene is likely to splash them. The cleansing fluid can best be poured into the bearings by the aid of an ordinary oil can. Lubricating oil should be run in after the kerosene has been drained off.

BICYCLE INFIRMARIES.

Bicycle repairers are so numerous that startling advertisements are necessary to secure business. A handbill of this purport has been widely circulated in Chicago, according to the *Tribune:*

Bicycle Surgery.

Acute and chronic cases treated with assurance of success.

Languid tires restored to health and vigor.

Tires blown up without pain. Wind free.

We understand the anatomy, physiology, and hygiene of wheels, and give homœopathic or allopathic treatment as individual cases require.

Sure cure guaranteed.

Testimonials:

"My wheel had three ribs fractured, and you cured it in one treatment."

"My tires were suffering with a case of acute aneurism, which had been pronounced fatal by other bicycle doctors; but you cured the disorder, and I did not lose a day of my tour."

"I was troubled with varicose tires, involving frequent ruptures and incontinence of wind. You cured me."

Thousands of testimonials like the above sent on application.

HINTS FOR BICYCLISTS.

A good bicyclist is careful of his roads; therefore, when taking a header, be careful not to hit the road too hard with your forehead. You might make a dent in the pavement.

In falling off your wheel, do not fall on both sides at once. Failure to observe this rule will result in dividing you against yourself.

Always be courteous. If a trolley-car has the right of way over the track, do not dispute with it. A boy in Massachusetts who broke this rule broke his right arm and his cyclometer at the same time.

Keep your lamp lit when riding at night. The boy who thought he was safe because he had a parlor-match in his pocket came home with a spoke in his wheel that didn't belong there.

A merciful rider is merciful to his wheel, so do not force a bicycle beyond the point of its endurance, unless you want to walk back with your wheel on your shoulders.

Keep cool. If, in the course of a ride, you find yourself in a tight place, with a skittish horse to the left and a steep ravine to the right, and a bull-dog directly to the fore, take the ravine. You'll go into it, anyhow, and if you take it along without dragging the dog or the horse after you your chances will be improved.

Never use spurs on the pneumatic tires of your wheel. The use of spurs in this manner is likely to leave your bicycle in a winded condition. Spurs are not comfortable, either, in case of a throw.

Do not be stubborn with a balky wheel. If the front wheel gets in a rut going east, and the hind wheel in another going west, dismount and argue the matter standing, unless you are tired, and want to lie down by the roadside without making the effort to do so unassisted.—*Harper's Round Table.*

Substitutes for India Rubber.

For many years past it has been the dream of hundreds, and among them many chemists of eminence, to manufacture a real substitute for India rubber. Those sold to day, of course, are only partial substitutes, that is, when used alone, none of them can take the place of rubber. They are compounded with it, and give it a certain softness, and add cheapness, but that is about all.

As a rule, the investigators have made their experiments in the line of oxydized oils, perhaps because, chemically, a thoroughly oxydized oil is thoretically the same as caoutchouc, practically, however, it is woefully different. English chemists, by using certain costly oils, have produced a gum that would compound and vulcanize as well as genuine rubber, but its great cost made it worthless commercially. An artificial rubber of considerable strength was produced in France by dissolving four parts of nitro-cellulose in seven parts of bromo-nitro-toluol. By varying the proportions a variety of products were obtained varying from soft rubber to vulcanite. In some cases nitro-cumol and its homologues were used in place of the bromo-nitro-toluol.

Glue, glycerin, and bichromate of potash, made in a manner like printers rollers but with a fourth secret substance added, form the basis of a singularly rubber-like compound that French ingenuity has produced. It, however, has about as many defects as it has virtues, and is not largely in use, nor will it ever be while rubber is accessible.

In addition to these there have been hundreds of others that have been, in a measure, successful. One Connecticut inventor produced so good an artificial rubber that a large manufacturing concern had made all arrangements to purchase the secret, when it was found that the vulcanized product had a trick of shrinking after being made up into goods. Not a little, but a steady shrink that could not be stopped, until finally it wasted away and left only the fabric upon which it had been spread. At the same time, in the face of all these failures, disappointments, and successes that were of no commercial value, the rubber trade have ever felt that the day might come when, by accident, nature's secret might be stumbled upon. As a rule, the more thoughtful believe that if rubber ever is displaced it will be by a series of different products each of which will equal rubber in some particular field, rather than one compound that shall have all the varied qualities and excellencies of rubber itself.

Formulary.

DANDRUFF POMADE.

Pilocarpine	½ drachm.
Quinine hydrochlorate	1 "
Precipitated sulphur	2½ "
Peruvian balsam	5 "
Ox-bone marrow	3 ounces.

Make a pomade.—*Pharm. Zeitung.*

DEPILATORY SOAP.

Metinger (*Rev. de Thérap.*, lxii., 450) gives the following formula for a depilatory soap: Glycerin, 373; lard, 746; cacao butter, 746; castor oil, 1,492; solution of caustic soda, 25 per cent., 1,492; starch, 94; sulphide of sodium, 746; oil of citronella, 94; water, 1,674 parts.

NEW WOOD VARNISH.

Paolo Theil's brilliant varnish for wood is composed of:

Guaiac	125 parts.
Gum-lac	30 "
Benzoin	125 "
Linseed oil	150 "
Benzine	30 "

WASH FOR REMOVING LICE, ETC., FROM HOUSE PLANTS.

Soft soap	2 parts.
Quassia powder	10 "
Salicylic acid	1 "
Alcohol	40 "

To be sprayed on the under side of the leaves and about the stems.—*Pharmaceutische Rundschau.*

MONTPELLIER COUGH-DROPS.

Brown sugar	10 lbs.
Tartaric acid	2 ounces.
Cream of tartar	12 drachms.
Water	3 pints.
Aniseed flavoring	q.s.

Melt the sugar in the water, and when at a sharp boil add the cream of tartar. Cover the pan for five minutes. Remove the lid, and let the sugar boil up to crack degree. Turn out the batch on an oiled slab, and when cool enough to handle mould in the acid and flavoring. Pass it through the acid drop-rollers, and when the drops are chipped up, and before sifting, rub some icing with them.—*Confectioners' Union.*

CAMPHOR ICES.

(1)	Oil of almonds	4 ounces.
	Spermaceti	8 ounces.
	White wax	4 ounces.
	Camphor	1 ounce.

Melt together over a water-bath, and pour into moulds of proper size and form.

(2)	Spermaceti	4 ounces.
	White wax	4 ounces.
	Camphor, powdered	4 ounces.
	Sodium borate	2 ounces.
	Stearin	16 ounces.
	Glycerin	33 ounces.
	Oil lavender	25 minims.
	Oil lemon	25 minims.
	Oil cloves	25 minims.
	Oil bergamot	25 minims.

Melt the wax, spermaceti, and stearin, then dissolve the camphor in the warm mixture; mix the borax and oils with the glycerin, and stir into the hot mixture gradually, constantly agitating. Pour into suitable moulds.

(3)	White wax	5 ounces.
	Paraffin	2 ounces.
	Petrolatum	8 ounces
	Camphor	2 ounces.
	Glycerin	2 ounces.

Melt the first three ingredients, add the camphor, and, when dissolved, the glycerin. Mix thoroughly and pour into suitable moulds.—*Bull. Pharmacy.*

Formulæ for Hot Soda, etc.

The following formulæ will be found valuable for those druggists handling hot soda. They are found in the list published by Lippincott & Co., Philadelphia:

PREPARED SPICE.

Powdered allspice	½ ounce.
" nutmeg	1 "
" cloves	1 "
" cinnamon	1 "

PREPARED MILK.

Pure milk	1 pint.
Condensed milk	4 ounces.
Extract vanilla	⅛ ounce.
Bicarbonate of soda	5 grains.

WHIPPED CREAM.

Pure cream	1 quart.
Whites of	3 eggs.
Powdered sugar	1 pound.

Mix eggs and sugar, and beat together with a Keystone beater; after standing two or three hours add the cream, and beat into the proper consistency with reverse motion.

HOT LEMONADE.

Loaf sugar	About 4 cubes.
Soluble extract lemon	" 15 drops.
Tropical fruit acid	" 10 "
Hot soda sufficient to fill cup.	

HOT GINGER.

Loaf sugar	About 4 cubes.
Soluble extract ginger ale	" 15 drops.
Hot soda sufficient to fill cup.	

HOT GINGER ALE.

Loaf sugar	About 4 cubes.
Soluble extract ginger ale	" 10 drops.
Soluble extract lemon	" 10 "
Tropical fruit acid	" 10 "
Hot soda sufficient to fill cup.	

HOT MINT JULEP.

Loaf sugar	About 4 cubes.
Extract mint julep	" 10 drops.
Prepared milk	" 1 dessertspoonful.
Hot soda sufficient to fill cup.	
Whipped cream	1 tablespoonful.
Grated nutmeg, sufficient quantity.	

HOT COGNAC.

Loaf sugar	About 4 cubes.
Extract cognac	" 10 drops.
Prepared milk	" 1 dessertspoonful.
Hot soda sufficient to fill cup.	
Whipped cream	1 tablespoonful.
Grated nutmeg, sufficient quantity.	

HOT COFFEE.

Loaf sugar	About 4 cubes.
Extract Mocha coffee	" 1 dessertspoonful.
Prepared milk	" 1 " "
Hot soda sufficient to fill cup.	
Whipped cream	About 1 tablespoonful.

HOT TEA.

Loaf sugar	About 4 cubes.
Extract Oolong tea	" 1 dessertspoonful.
Prepared milk	" 1 " "
Hot soda sufficient to fill cup.	
Whipped cream	1 tablespoonful.

HOT CHOCOLATE.

Soluble powdered extract chocolate	About 1 teaspoonful.
Hot soda, sufficient quantity to dissolve.	
Stir well; then add	
Loaf sugar	4 cubes.
Prepared milk	1 dessertspoonful.
Hot soda sufficient to fill cup.	
Whipped cream	1 tablespoonful.

AROMATIC BEEF BOUILLON.

Extract aromatic beef	About 1 teaspoonful.
Extract celery and pepper	" 10 drops.
Hot soda sufficient to fill cup.	

BEEF TEA.

Extract beef bouillon	About 1 teaspoonful.
Extract aromatic soup herbs	10 drops.
Hot soda sufficient to fill cup.	

BEEF AND CELERY TEA.

Extract beef and celery	About 1 teaspoonful.
Broken celery leaves	2 or 3 pieces.
Hot soda sufficient to fill cup.	

CLAM BOUILLON.

Extract clam bouillon	About 2 tablespoonfuls.
Prepared milk	" 1 dessertspoonful.
Extract aromatic soup herbs	" 5 drops.
Ext. celery and pepper	" 5 "
Hot soda sufficient to fill cup.	

OYSTER BOUILLON.

Extract oyster bouillon	About 2 tablespoonfuls.
Prepared milk	" 1 dessertspoonful.
Extract aromatic soup herbs	" 5 drops.
Ext. celery and pepper	" 5 "
Hot soda sufficient to fill cup.	

CHICKEN BROTH.

Extract chicken broth	About 1 teaspoonful.
Ext. aromatic soup herbs	" 10 drops.
Extract white pepper	" 10 "
Hot soda sufficient to fill cup.	

HOT EGG PHOSPHATE.

1 Egg.	
Lemon juice	About 3 teaspoonfuls.
Soluble ext. lemon	" 10 drops.
Confectioners' sugar	" 3 large teaspoonfuls.
Prepared spice	small quantity.
Extract cognac	" 15 drops.

These ingredients are placed in a combination shaker and thoroughly shaken; then strained through julep strainer into hot soda cup; to this is added two large tablespoonfuls of whipped cream. Draw hot soda into side of cup, and stir from bottom only.

Bacteriological Studies for Belgian Pharmacists.

In a recent sitting of the Belgian Chamber of Deputies, Pharmacien Gillieaux, a member, proposed the enactment of a compulsory course of bacteriological study for pharmacists. He was supported by several medical men among the deputies, and the Minister concerned promised to make inquiries and eventually to bring in a bill on the subject.

To bronze leather, apply with a brush or a sponge the following mixture; Dissolve 1 part of tannin in 50 parts of alcohol, and into this solution stir the bronze powder.

Attention is called to the incompatibility of resorcine with sweet spirits of nitre. A solution of a permanent dark red color is formed, and is said to produce a severe irritation upon the skin.

WATSON'S COUGH DROPS = =

Are warranted to give **Immediate Relief** to those suffering from **Cold, Hoarseness, Sore Throat, etc.**

R. & T. W. STAMPED ON EACH DROP

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FORMULA.—**Borine** *is composed of the active constituents of styrax benzoin, gaultheria procumbens, spirœa ulmaria, solidago odora, hamamelis virginica, the stearoptenes of thymus serpyllum, eucalyptus globulus, menthæ arvensis, with boracic acid.*

Borine possesses a fragrant odor and a very agreeable pungent taste. It mixes with water in all proportions, and is compatible with most of the preparations of the pharmacopœia. It does not injure or stain the most delicate fabric, and is therefore useful as a general disinfectant.

Borine is highly recommended as a *Mouth Wash*, as a *Gargle*, *Spray* or *Lotion* in inflammations of the throat, nose and mucous membranes; for *Inhalation* in croup, diphtheria and whooping cough; as a soothing and antiseptic application to wounds, burns, etc., and internally as a sedative, antifermentative and carminative in digestive troubles and in intestinal disorders.

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Strengthens the entire system; most Agreeable, Effective and Lasting Renovator of the Vital Forces.

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This Wine of the Extract of Cod Liver, prepared by M. CHEVRIER, a first-class Chemist of Paris, possesses at the same time the active principles of Cod Liver Oil and the therapeutic properties of alcoholic preparations. It is valuable to persons whose stomach cannot retain fatty substances. Its effect, like that of Cod Liver Oil, is invaluable in Scrofula, Rickets, Anæmia, Chlorosis, Bronchitis, and all diseases of the Chest.

Wine of the Extract of Cod Liver with Creosote

General Depot:—PARIS, 21, Faubourg Montmarte, 21

CHEVRIER

Sold by all first-class Chemists and Druggists

The beech-tree Creosote checks the destructive work of Pulmonary Consumption, as it diminishes expectoration, strengthens the appetite, reduces the fever, and suppresses perspiration. Its effect, combined with Cod Liver Oil, makes the Wine of the Extract of Cod Liver with Creosote an excellent remedy against pronounced or threatened Consumption.

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KEEP ON HAND

Dr. Campbell's Safe Arsenic Complexion Wafers...

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THE ONLY REAL BEAUTIFIERS OF THE COMPLEXION, SKIN, AND FORM

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CANADIAN AGENTS
71 Front St. E., Toronto, Ont.

Photographic Notes

Beautiful photographs of the bottom of the Mediterranean have been taken by a Frenchman, who uses a barrel of oxygen surmounted by a glass globe containing an alcohol lamp, a mechanical contrivance throwing magnesium powder on the flame when a view is to be taken.

Separating Films from their Support and Enlarging Same.—According to a British patent, just published, this may be done by preparing the following solution :

Fluoride of sodium	1 dram.
Citric acid	9 drams.
Water	7 ounces.

The negative is allowed to remain in this until the film separates from the support, and it is then removed to a bath of cold water, where it remains until the desired enlargement is effected. The above formulæ will enlarge the film two times. For a greater enlargement, use more of the acid ; for a smaller, use less.—*Photo Beacon.*

Tourists' Developers.—During the holiday season, when ameteurs are on tour or tramp, they frequently desire a dry powder developer to carry with them, which they can dissolve in water to develop just one plate as a test of their exposures. A very convenient formula is the following :

Hydroquinone	15 grs.
Eikonogen	7½ grs.
Sodium sulphite	60 grs.
Potassium bromide	2 grs.

Powder the ingredients and wrap in white demy, waxed paper, and tinfoil. In another paper wrap up—

Lithium carbonate	20 grs.

Directions for use : Dissolve the contents of these two packets in 4 ozs. of water to make a developer suitable for all ordinary work.

The hydroquinone and eikonogen in above formula may be replaced by 20 grains of pyrogallic acid, and 2 grains of oxalic acid ; but this does not keep so well as the other.

Instead of packing the powders in paper, the small flat bottles, such as used for tabloids, may be used for the actual developing powder, the lithium carbonate keeping very well in paper.—*Pharmaceutical Journal.*

Photography for Chemists.

Exposure and Development.—After exposing a plate, the all-important operation of development has to be undertaken, and to successfully develop a properly exposed negative is at once a science and an art. To attempt to give a practical lesson in development on paper is a task from which we shrink, but we can lay down certain fundamental methods, following which error will not be so frequent nor failure so depressing, but we may at once state that one hour's practical lesson is worth a hundred articles, provided, of course, you see a good operator at work.

We must first of all suppose a simple subject, such as the view over some gardens from our back windows. If we have one dark slide, then both sides would be filled with slow or landscape plates. If we have more slides, then fill them all, and having set up the camera, let us consider for a moment what exposure we intend to give. We will stop our lens down to F/32, and assume that we have chosen between 12 and 2 as the time for exposing.

Having focussed and stopped the lens down, put on the cap, turn back the focussing glass and insert the dark slide, taking care not to shift the camera ; if the dark slide goes in too stiffly, rub the edges with ordinary black lead and polish with a dirty duster. Now cover the camera and dark slide with the focussing cloth, insert the hand under the cloth, take hold of the projecting tongue of dark slide shutter, and gently withdraw. Be careful always to work in one particular way : first focus, stop down the lens, cap it, insert slide, withdraw shutter ; by doing this failure is avoided.

We know nothing of the exposure required, so intend to make some experiments and determine, having four plates to give exposures in geometrical progression, starting with half second ; therefore, we shall give half, one, two, and four seconds.

Now for timing exposures. The simplest way is to start with the fingers on the cap, gently ease it to the edge of the hood and smartly, yet without force, remove the cap and start instantly 0 1 2 3 4, 2 2 3 4, 3 2 3 4, 4 2 3 4, thus counting four to each second, and always starting a fresh second with the number which, when the second is complete, will be the number counted. A little practice against a watch with a seconds hand, or against a pendulum clock, or even a bunch of keys hung to the end of a stout string about 9 inches long, which, of course, beats half seconds, will soon make this very simple and easy, and from considerable practice our error in seconds counting does not reach 2 per cent.

We expose our plates then for the above-stated times and enter the dark room, ready to develop. We determine to use pyrogallol with the fixed alkalies, not ammonia, and for preference decide on soda ; the recrystallized sodium carbonate should be used in 10 per cent. solution. We also want a 10 per cent. solution of potassium bromide and pyro. ; formulæ for these have already been given.

A normal developer, that is, one which may be used for all plates without fear of fog, assuming them to be rightly exposed, is as follows :

Pyro	2 grs.
Potassium bromide	½ "
Sodium carbonate	12 "
Water to make	1 ounce

Mix this in a measure, allowing 1 oz. for quarter plate, 2 ozs. for half plate, and 4 ozs. for whole plate. This is to old workers rather too much, but for beginners it is better to waste a little developer than waste a plate. Open the dark slide, not right in front of the light, but in the shadow. Remember that the side which faced the lens was, or should have been, the film. Place the plate this side up in the dish, take the dish in the left hand, slope it with one side and end away from you, slightly, not too much ; then take the measure, lower it at the higher end on to the dish edge, and with a sudden sweep, drawing the measure down the side of the dish away from you, pour the developer over the plate, and immediately rock the dish backwards and forwards, and put down the measure. Now raise the dish a little, lower the head, and hold the dish up towards the light and examine for air bells, which will be seen by the shadows they cast, or by the little waves they cause when the dish is gently rocked If any are visible they may be removed by using a very soft, long-haired, flat camel's-hair brush, this being gently passed over the surface of the plate backwards and forwards. Some careful operators always use a brush, others, quite as careful, use their fingers. If a brush be used it must be kept for this work only ; have a special nail to hang on, and a very stout india-rubber ring, such as are used for soda-water bottles, slipped up the handle to prevent the hairs touching any wall or surface.

It is always advisable to note the time of pouring on the developer, and for this purpose a watch or clock with seconds hands may be used ; or Watkins' eikronometer, a specially-devised clock, to be obtained wholesale from R. Field & Co., Suffolk street, Birmingham, can be bought, price 10s. 6d. The idea in noting the time of pouring on the developer is that we may determine the duration of development ; for upon this depends the quality of the negative.

We will first of all take the plate exposed for half a second and, having poured on the developer, eagerly watch for any signs of an image, carefully rocking the dish meanwhile. Time passes, and after seventy-five seconds there is a faint trace of the sky just showing a delicate tinge of gray on the creamy ground ; and now we see signs of one or two more bright objects, or, as we call them, "high lights," the bulk of the image ; however, all the trees, the parts in shadow, remain unaltered. After two and a half minutes, as the sky is getting darker and darker, and here and there a few scattered points show up, the question arises, have we under-exposed ? Probably so ; therefore, we measure out 6 grains of sodium carbonate (= 1 drachm 10 per cent. solution) in the measure, pour the developer from the dish into the measure, and return the mixture to the plate and rock ; a little more appears, and after about thirty seconds more we add

still another 6 grains and rock for another thirty seconds. We now look at our clock and find we have been developing just four minutes. We, therefore, conclude that we can get no more out of the plate; it is under-exposed. Pour off the developer, wash the plate thoroughly under the tap for about five minutes, and place it in the fixing bath, preferably the acid fixing bath, the formulæ for which has been given in the previous notes, and wait ten minutes, employing the time in washing the dish, measure, etc.

We now remove the plate from the fixing bath, wash it for about two minutes under the tap, see that we have not left our dark side open, and walk into daylight and examine the negative. There appears a dense sky, scattered traces of objects here and there, but the greater part is bare glass; conclusion, grossly under-exposed. Treating the second plate in like manner, we find that the image appears much quicker, and after about three minutes' development it looks fairly well; we can distinguish most of the objects, and this with only the normal developer. Not knowing any better, we place it in the fixing bath after washing, and again take out to examine. We now find a betterlooking negative; nearly everything is visible, and only here and there patches of bare glass; still, in those parts in shadow the deposit is not very great; conclusion, plate under-exposed, but not so much as No. 1. So we start again with No. 3; with this the sky appears in thirty seconds, and the next highest light, it may be a bright house wall, a patch of grass, or something of that kind, appears in forty-five seconds. Noting this time we continue development for three minutes, and then wash, fix, and examine and see a pretty-looking negative dense in the high lights and showing detail strong everywhere, and practically no bare glass; conclusion to be drawn, correct exposure, correct development; result, a perfect negative.

If this be the result with two seconds' exposure, the last plate which received four seconds must be over-exposed; still we use the normal developer. The image flashes out in about fifteen seconds, shows rapidly everywhere, and then a dirty veil begins all over the plate. Alarmed at this, we wash and place in the hypo., and then examine, and find a thin sky, thin or not much deposit anywhere, no bare glass and a deposit, veil or fog over the whole plate; conclusion to be drawn, plate much over-exposed. From these four little experiments a good deal may be learnt. We should have learnt the normal appearance of a correctly-timed negative, what an under-exposed one looks like, and the appearance of over-exposure, and if we bear these results in mind and judge subsequent work by them we shall not have wasted our four plates.

The correct duration of development is an all-important factor; therefore we must treat of it at greater length. Upon the correct duration of development depends the correct printing density, for with a negative under-developed we obtain in printing a false and unsatisfactory result, one without shadows and white or brilliant high lights; whereas with over-development we may not only lose an enormous amount of time in consequence of the increased insolation we have to give for printing, but also the results as regards graduation are frequently wrong.

The best guide as to the duration of development is that suggested by Mr. Alfred Watkins, of Hereford. It is not flawless, theoretically, but it is the best practically. Mr. Watkins has formulated a table and method of working which is briefly as follows:—The time of the appearance of a high light, such as the grass in a landscape or the face in a portrait, should be noted, and the multiplication of this time, that is, the time which elapses from the pouring on of the developer till the first sign of this particular high light is seen, is then multiplied by the factor belonging to the particular developer used, and the result will be the complete time of development counting from the moment of pouring on the developer.

WATKINS' TABLE.

	Multiplying Factor.
Pyro. soda, 1 gr. pyro. to oz.	7½
" 2 " "	4
" 3 " "	3½
" 4 " "	3
" 8 " "	2½
Pyro. potash, quarter less than above	
Hydroquinone (caustic soda, ½ gr. bromide)	3
Eikonogen (with carbonate of potash)	5
Metol (carbonate of soda)	16
Glycin	8
Amidol, 2 gr. to the oz.	10
" 4 " "	6

When a negative flashes up the instant the normal developer is applied, over-exposure must be expected, and then some solution of citrate of soda should be added instantly, and development proceeded with. In developing plates which have been exposed at the same time as the first one, over-exposure may also be expected, and then the normal developer may be altered as follows: Pyro., 5 grs.; bromide, 2½ grs.; carbonate of soda, 5 grs.; water, 1 oz.; and more soda added as found necessary. In the case of under-exposure it is advisable to add three times the quantity of water, and give it time, but no variation of the strength of the developer will compensate for under-exposure.—*Pharmaceutical Journal* (*Eng.*)

Thought Photography.

The *Amateur Photographer* for November 22nd publishes an interesting article by W. Ingles Rogers, in which he propounds the question, "Can thought be photographed?" and describes some experiments the results of which seem to have some bearing on the point. The article is illustrated, and there is one striking reproduction of a photographic plate which was placed before the experimenter's eyes for twenty minutes in a dark-room, after he had been steadily gazing at a postage stamp for one minute in the light. The experiment was performed in the presence of credible witnesses, and the plate, when developed, revealed two faint images of the postage stamp, and the print clearly shows these, surrounded by whitish fog. Curiously enough, the distance between the central points of Mr. Rogers' eyes is 2½ inches, but that between the two images is 3⅛ inches. It would appear, therefore, that this is a case of projection, and not merely reflection. The phenomenon is doubtless optical, but an interesting field of inquiry is opened up, and some time may elapse before it becomes capable of explanation.—*Phar. Journal.*

Test for Chlorates.

In the *Journal de Pharmacie et Chimie*, G. Denigès publishes a formula (resorcin, 1 gramme; water, 100 c.c.; sulphuric acid, 10 drops), for the detection of chlorates when present in a solution varying in strength from 1 in 1,000 to 1 in 50. The manipulation is as follows: 1 or 2 drops of the liquid containing a chlorate and 2 c.c. of pure sulphuric acid are poured in a test tube, the mixture is cooled by plunging the tube in cold water and then shaken; to this add, without agitation, 5 drops of the above resorcin reagent, then cool again with cold water, and gently shake. If chlorates are present, a green coloration is obtained. The same operation will produce with nitrates a faint yellowish tinge, changing to violet-red on heating. Nitrates, however, give an intense violet-blue tint, and in the presence of this acidulous radical it would be necessary in searching for chlorates to modify the process thus: To 2 or 3 c.c. of the saline solution, add half its volume of ammonia solution, filter if necessary, supersaturate with acetic acid, evaporate till only 4 or 5 drops remain, then add to this residue 10 or 15 drops of water, and, on testing for chlorates with the resorcin solution, the green coloration will be produced. A tenth per cent. of chlorate can be thus detected in a liquid containing 1 per cent. each of nitrate of sodium and nitrate of potash. If chromates or permanganates are present, the solution should be first treated with ammonium sulphydrate, filtered, supersaturated with acetic acid, boiled and refiltered. Iodides should be previously eliminated by lead acetate. The author states that the above test has a decided advantage over the sulphate of aniline reaction, as it does not affect bromates; it is, besides, a very delicate one, so much so that it is preferable to dilute the solution for analysis in order to obtain the characteristic green coloration.—*Phar. Journal.*

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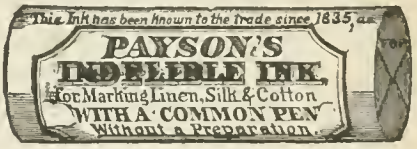
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Practical Hints on Advertising.

By Charles Austin Bates, New York.

The sooner everybody learns that advertising is purely and simply telling people the real facts about goods and business, the sooner all advertising will begin to pay. It is not necessary to be smart, or cute, or original. I doubt if anybody could be original if they tried. About the time that one evolves a very brilliant idea, which he believes to be entirely original, he bumps his head against the same thing written by somebody else a hundred years ago, more or less. In the name of good advertising, let us stop trying to be cute. Let us talk business from start to finish. Let us have an A B C of advertising which will say, A is for advertising, B is for business, and C is for common sense, and then let's stop. That's enough of the alphabet.

You cannot make your advertisements too plain. It is a great deal better to have them too plain than not plain enough. If you make the ad. so plain that even a fool can understand it, you are sure to be understood by the smart people.

Of course you will say any one of ordinary intelligence will know what it means at once, but just think over the list of people you know and see how many of them possess ordinary intelligence. You remember the old Quaker's remark to his wife —"All the world are fools but me and thee, and sometimes I think thou art a little queer."

There are a great many people in the world who do not know enough to go in out of the rain, and the money of these people is just as good as that of anybody else.

Advertising is, or ought to be, *news*, and a news item that remains standing for three or six months gets just a trifle stale and uninteresting.

If you will tell people something new and interesting every day or every week, they will soon read the ad. regularly. Sooner or later you'll get their trade.

There are facts about every business that people generally would be glad to know. There is nothing in the world so close to every man as the needs of his to daily life. It is more important for him know that you "have a nice lot of goods at certain given prices" than it is for him to know that "Mike Cassidy killed an Italian named Macaroni in New York yesterday."

It is useless to advertise outside of the store and not inside. The first requisite in a system of advertising is cleanliness and order—the general appearance of the store. After that comes courtesy and the quality of the goods, and it is hard to tell which is more important.

No matter how insignificant the transaction, it doesn't take any longer to be amiable than to be crusty. There is such a thing as being too pleasant—familiar—that isn't good. It leads to a lack of respect. A merchant should keep up his dignity.

There is no use advertising in a half hearted way. Somebody, I don't remember just who, said: "He who asks timidly courts denial." This is as true in advertising as in anything else. One of the best things an advertisement can do is to convince readers that the advertiser is in dead earnest about his business; that he means what he says and expects to be believed.

People are like sheep. They go where they are led or driven. They like to be told exactly what to do and when to do it. Positive, forceful advertising is the kind that pays. The ad. that makes a clear, straight, definite proposition or statement about something in particular is the one that makes the best and deepest impression.

It is undoubtedly wise to send out a circular of some sort to those who have previously been customers. I do not think personal letters, or circulars in imitation of letters, are so good as the printed circular or a little booklet. These may be as elaborate as you choose or it may be merely a simple postal card. I do not believe that circular advertising for a new business is very likely to be profitable. The newspaper is the best developer of new business. The circular should be used only as an auxiliary.

One of the best things that an advertiser can do is to make his ads. sound, fair, and reasonable. It is well to admit that the other fellow's goods may be pretty good. Then you can go on and say wherein yours have the advantage, and people will believe you are truthful because you are just. "If you can once get the public to believe that you are more careful in your statements, and more honorable in your dealings than your competitors, a great deal has been accomplished."

It has been said that an advertisement "works twenty-four hours a day." Do not, therefore, belittle its importance. Don't put off writing it till the last minute. There is nothing so susceptible to care, or the want of care, as your space in the newspapers. Without care in preparing and changing the matter, half of the cost is wasted. There is no single expenditure that a merchant makes which will net so big a profit, or so great a proportionate loss, as that for advertising. I believe that persistent and intelligent advertising always pays.

It is better not to attract attention at all than to attract unfavorable attention. An advertisement should be clear cut and distinct, with a clean display—not crowded—and with a concise, logical, reasonable talk in it—no slang and no levity. That doesn't exclude a little humor, or a pleasantry occasionally. It only applies to the flippant and undignified style which is frequently used.

The price of space is just the same whether the advertisement that is put into it is a good advertisement or a bad one. An advertisement that costs twenty dollars, and pays, is a good deal better than an advertisement that costs two dollars and does not pay. As a general thing I believe that the twenty dollar advertisement is more likely to bring really profitable results than the two dollar advertisement is. That is to say, if the two dollar advertisement will result in a ten dollar sale, the twenty dollar advertisement will bring more than ten times as much.

Business Notices.

As the design of the Canadian Druggist is to benefit mutually all interested in the business, we would request all parties ordering goods or making purchases of any description from houses advertising with us to mention in their letter that such advertisement was noticed in the Canadian Druggist.

The attention of Druggists and others who may be interested in the articles advertised in this journal is called to the *special consideration* of the Business Notices.

List of Graduates of the Optical Institute of Canada.

The following are among the past students of this Institute, and any or all of them serve as references, both as to the advisability of taking instruction in Optics, and the practicability of this course in particular:

T. W. Welch (with W. J. Dyas), Strathroy.
J. A. McFee (of Angus McFee), Belleville.
G. P. Bonewell, Thorold.
J. W. Armstrong, Lucknow.
W. M. Kirkland, Galt.
J. A. Austin, Toronto.
J. Thompson, Bracebridge.
W. A. Fenwick, Guelph.
H. Knell, Berlin.
J. S. Smith, St. Catharines.
H. C. Brittain, Strathroy.
J. T. Scales, Mt. Forest.
Miss B. Thompson, Bradford.
Miss F. Ansell, Toronto.
A. Lazarus, Toronto.
J. E. Jaques, Toronto.
S. W. Hobart, Kingston.
E. D. Wilcox, Uxbridge.
W. Barr, Hamilton.
F. A. Ellis (of The J. E. Ellis Co., Ltd.), Toronto.
W. G. Kinsman, Toronto.
J. E. Davis, Goderich.
G. A. Deadman, Brussels.
A. L. Wheatley (with G. D. Pringle), Guelph.
W. W. Munn, Toronto.
S. Rosenthal (with A. Rosenthal), Ottawa.
S. C. Lamb (with J. P. Lamb), Athens
E. C. Kinkead, Antigua, West Indies.
W. G. Maybee, St. Catharines.
C. H. Ward, London.
H. R. Knowlton, Athens.
W. A. Purvis, Renfrew.
J. A. Stewart (of McCarrol & Stewart), Meaford.
W. W. Porte, Brighton.
J. Findlay, Pembroke.
B. Grosse, Montreal.
O. Fallerbaum, Montreal.
T. Stevenson, Orangeville.
C. Vanzant, Markham.
E. A. Brown, Cornwall.
H. Michael, Toronto.
S. Michael, Toronto.
J. P. Lamb, Athens.
E. C. Mitchell, Kingston.
C. A. Olmstead (of Hurdman & Olmstead), Ottawa.
J. Higginbottom, Milton.
S. Scott, Newmarket.
J. W. Browett, Ingersoll.
H. Howell, Lacombe, N.W.T.
R. T. Kyle (with W. J. Dyas), Strathroy.
A. J. Mills, Toronto.
J. S. Leo, Montreal.
R. Hemsley, Sr., Montreal.
R. Hemsley, Jr., Montreal.
J. L. Gurd, Montreal.
N. Beaudry, Montreal.
A. G. Gaucher, Montreal.

N. Sperber, Montreal.
W. J. Curry (of Curry Bros.), Toronto.
T. C. Binckley (with Davis & McCullough), Hamilton.
F. Claringbowl, Hamilton.
J. R. L. Munshaw, Wingham.
W. A. McAsh, Detroit, Mich.
P. L. Scott, Paris.
F. B. Steacy (with T. B. Steacy), Brockville.
F. Sylvester, Beeton.
H. Powell, Stouffville.
Miss G. Sehamer (with Michael Bros.), Toronto.
W. H. Hopper, Cobourg.
J. C. Barnitz, Columbus, Ohio.
W. H. Scripture, Toronto.
W. R. Noble, Petrolea.
J. J. Gilfillan, Orono.
J. A. Borbridge (of Allen McFee), Belleville.
M. Reaford, Jamaica, West Indies.
Mrs L. B. Levetus, Toronto.
J. H. Gunther, Listowel.
H. Cameron, Owen Sound.
J. B. Rogers, Schomberg.
F. J. Morphy (of E. M. Morphy, Son & Co.), Toronto.
R. J. Galbraith (with Davis Bros.), Toronto.
A. M. Aronsberg, Toronto.
J. E. Nettleton, Collingwood.
W. A. Armstrong, Flesherton.
C. A. Conner, Whitby.
T. W. Haug (with N. E. Haug), Toronto.
O. W. Howell (with W. W. Howell), Toronto Junction.
D. J. Kilgour, London.
Miss S. Harper (with Charles Potter), Toronto.
E. H. Newman, Owen Sound.
E. H. Williams (with E. W. Williams), Barrie
C. A. Welsman, Toronto.
E. Scarlett, Omemee.
J. Parker (of Parker & Co.), Owen Sound.

—(*Advt*)

The following well-known druggists and others have just completed an optical course at the Optical Institute of Canada—Lionel Lawrence, Principal: E. H. Newman, Owen Sound; W. A. Armstrong, Flesherton; C. A. Connor, Whitby; C. A. Wellsman, Toronto; E. H. Williams, Barrie; D. F. Kilgour, London: T. W. Heng, Toronto; C. W. Howell, Toronto Junction; E. Scarlett, Omemee; John Parker, Owen Sound; Miss S. Harper, Toronto.

Professor Winchell's Paste.

Professor Alex. Winchell has a cement that will stick on anything. The receipt is as follows: Take two ounces of clear gum arabic, one ounce and a half of fine starch, and one-half ounce of white sugar. Pulverize the gum arabic, and dissolve it in as much water as the laundress would use for the quantity of starch indicated. Dissolve the starch and sugar in the gum solution. Then cook the mixture in a vessel suspended in boiling water, until the starch becomes clear. The cement should be as thick as tar, and kept so. It can be kept from spoiling by dropping in a lump of gum-camphor, or a little oil of cloves or sassafras. This cement is very strong indeed, and will stick perfectly to glazed surfaces, and is good to repair broken rocks, minerals, or fossils.—*Exchange.*

To preserve flour and starch pastes, add about four parts of beta naphthol and one part of thymol to six thousand parts of fresh, hot paste.

To disguise the taste of castor oil, pour a tablespoonful of the oil into a glass of milk, apply heat, and stir constantly until a perfect emulsion is obtained.

Books and Magazines.

Jerome K. Jerome has written a series of short stories for *The Ladies' Home Journal.* They will be published during the ensuing few months, under the caption of "Stories of the Town." Mr. Jerome portrays well-known types or characters in these stories, the first of which he calls "Blasé Billy." The series is interesting from the fact that it constitutes the first short stories that Mr. Jerome has ever written directly for an American periodical.

The publishers of *The Youth's Companion* are sending free to the subscribers of the paper a handsome four-page calendar, 7 x 10 in., lithographed in nine colors. It is made up of four charming pictures, each pleasing in design, under each of which are the monthly calendars for the year 1896. The retail price of this calendar is 50c. New subscribers to *The Companion* will receive this beautiful calendar free, and, besides, *The Companion* free every week until January 1st, 1896. Also the Thanksgiving, Christmas, and New Year's double numbers free, and *The Companion* fifty-two weeks, a full year, to January 1st, 1897. Address, *The Youth's Companion*, 195 Columbus avenue, Boston.

The December number of *The Delineator* is called the Christmas number, and is filled with holiday good things. The exposition of winter styles is complete, and the season's millinery is attractively presented. There is a special holiday article on dolls and their dressing, and another on novel home-made Christmas gifts, a theme pleasantly supplemented by the conclusion of Tillie Roome Littell's account of how to make crepe paper brownies. Subscription price of *The Delineator*, $1 per year, or 15 cents per single copy. Address all communications to The Delineator Publishing Co. of Toronto, Limited, 33 Richmond street west, Toronto, Ont.

"How to Win at Football" is one of the interesting features of the Christmas number of *Frank Leslie's Pleasant Hours for Boys and Girls.* It is by Wilt. P. Pond, and gives some good suggestions for the formation of a football team that would be almost invincible. Another valuable article is "The Children of Corea," by A. B. deGuerville. Then there is a Christmas story by Judith Spencer; several other short stories; an illustrated Christmas poem by G. A. Davis; the continuation of "A Plucky Fight," by Edward S. Ellis, and "Three Little Heroine," by Jeannette H. Walworth; the description of a novel game, and a story for little folks—all handsomely illustrated. The editor chats entertainingly and wisely about the new books for boys and girls, and there are a number of puzzles.

The Christmas number of *Frank Leslie's Popular Monthly* is already out, and will hardly be surpassed in richness and beauty of pictorial illustration, or in seasonable variety of literary contents, by anything that may follow during the holiday season. The opening article, upon "Heroines and Heroine Worship," affords a vehicle for nearly a score of exquisite reproductions from the old and modern master-painters. A similar opportunity is found in the intensely poetic story, by A. Cressy Morrison, of "The Man who Resembled Christ," which in addition is illustrated with some original drawings of rare delicacy. The great literary feature of the number is Tolstoi's latest story,

WANTS, FOR SALE, ETC.

Advertisements under the head of Business Wanted, Situations Wanted, Situations Vacant, Business for Sale, etc., will be inserted once free of charge. *Answers must not be sent in care of this office unless postage stamps are forwarded to re-mail replies.*

SITUATIONS WANTED.

SITUATION WANTED BY A DRUG CLERK. Over two years' experience Well posted in drugs, both German and English. Wishes to finish his apprenticeship. Address, A. G Kalbfleisch, Berlin, Ont.

DRUGGISTS

will find that the neat appearance of the

"Surf" Sea Salt

package is a great help in selling it. It can be ordered from any wholesale house.

1 doz. 5 lb. packages per case, $1.00; sell at 15 cents each. 12 cases, $11 00.

TORONTO SALT WORKS, Toronto, Importers.

A Few Reasons

WHY

DRUGGISTS SHOULD HANDLE

Dr. Story's 5-Minute Headache Cure:

First,—Merck says the formula cannot be improved.
Second, 10 cents is the popular price.
Third,—Out of 48 dailies, Ontario, we have a six-inch display and readers in thirty; will have all in 60 days.
Fourth, We protect the druggist in that we never sell or allow our goods sold to Department, Dry-goods, or Grocery stores.
Fifth,—The immense profit.

KINDLY SEND AN ORDER TO

J. A. Kennedy & Co., London,

for 1 Gross of Dr. Story's 5-minute headache cure, at $5.70 a gross, or 50c. a dozen.

Get ready for the boom. Don't wait, as this journal says, till you have a dozen calls, and your neighbor gets the benefit of the advertising.

STORY MEDICINE CO.
Cleveland, Ohio.

- - - DRUGGISTS - - -

we desire to show you

The Handsomest Line of Christmas Perfumes

The Leading Line of the World
Without a Rival in the Field

Send us your name and address and we will arrange to see you. Agents now at work in all portions of the United States and Canada

Up-to-date Ideas in Perfumes Pay

SEELY *The American Perfumer* • • • *Detroit, Mich.* *Windsor, Ont.*

NEW CATALOGUE MAILED ON APPLICATION.

CANADIAN DRUGGIST PRICES CURRENT

Corrected to December 10th, 1895.

The quotations given represent average prices for quantities usually purchased by Retail Dealers. Larger parcels may be obtained at lower figures, but quantities smaller than those named will command an advance.

Alcohol, gal	$4 37	$4 65
Methyl	1 90	2 00
Allspice, lb	13	15
Powdered, lb	15	17
Aloin, oz	40	45
Anodyne, Hoffman's bot., lbs	50	55
Arrowroot, Bermuda, lb	50	55
St. Vincent, lb	15	18
Balsam, Fir, lb	40	45
Copaiba, lb	65	75
Peru, lb	3 75	4 00
Tolu, can or less, lb	65	75
Bark, Barberry, lb	22	25
Bayberry, lb	15	18
Buckthorn, lb	15	17
Canella, lb	15	17
Cascara, Sagrada	25	30
Cascarilla, select, lb	18	20
Cassia, in mats, lb	18	20
Cinchona, red, lb	60	65
Powdered, lb	65	70
Yellow, lb	35	40
Pale, lb	40	45
Elm, selected, lb	18	20
Ground, lb	17	20
Powdered, lb	20	28
Hemlock, crushed, lb	18	20
Oak, white, crushed lb	15	17
Orange peel, bitter, lb	15	16
Prickly ash, lb	35	40
Sassafras, lb	15	16
Soap (quillaya), lb	13	15
Wild cherry, lb	13	15
Beans, Calabar, lb	45	50
Tonka, lb	1 50	2 75
Vanilla, lb	6 00	8 50
Berries, Cubeb, sifted, lb	30	35
powdered, lb	35	40
Juniper, lb	7	10
Ground, lb	12	14
Prickly ash, lb	40	45
Buds, Balm of Gilead, lb	55	60
Cassia, lb	25	30
Butter, Cacao, lb	75	80
Camphor, lb	80	85
Cantharides, Russian, lb	1 40	1 50
Powdered, lb	1 50	1 60
Capsicum, lb	25	30
Powdered, lb	$ 30	35
Carbon, Bisulphide, lb	17	18
Carmine, No. 40, oz	40	50
Castor, Fibre, lb	20 00	20 00
Chalk, French, powdered, lb	10	12
Precip., see Calcium, lb	10	12
Prepared, lb	5	6
Charcoal, Animal, powd., lb	4	5
Willow, powdered, lb	20	25
Clove, lb	16	17
Powdered, lb	17	18
Cochineal, S.G., lb	40	45
Collodion, lb	75	80
Cantharidal, lb	2 50	2 75
Confection, Senna, lb	40	45
Creosote, Wood, lb	2 00	2 50
Cuttlefish Bone, lb	25	30
Dextrine, lb	10	12
Dover's Powder, lb	1 50	1 60
Ergot, Spanish, lb	75	80
Powdered, lb	90	1 00
Ergotin, Keith's, oz	2 00	2 10
Extract, Logwood, bulk, lb	13	14
Pounds, lb	14	17
Flowers, Arnica, lb	15	20
Calendula, lb	55	60
Chamomile, Roman, lb	25	30
German, lb	40	45
Elder, lb	20	22
Lavender, lb	12	15
Rose, red, French, lb	1 60	2 00
Rosemary, lb	25	30
Saffron, American, lb	65	70
Spanish, Val'a, oz	1 00	1 25
Gelatine, Cooper's, lb	75	80
French, white, lb	35	40
Glycerine, lb	20	22
Guarana	200	2 25
Powdered, lb	2 25	2 50
Gum Aloes, Cape, lb	18	20
Barbadoes, lb	30	50
Socotrine, lb	65	70
Asafœtida, lb	40	45
Arabic, 1st, lb	65	70
Powdered, lb	75	85
Sifted sorts, lb	40	45
Sorts, lb	25	30
Benzoin, lb	50	1 00
Catechu, Black, lb	9	20
Gamboge, powdered, lb	1 20	1 25
Guaiac, lb	50	1 00
Powdered, lb	90	95
Kino, true, lb	2 00	2 25
Myrrh, lb	$ 45	$ 48
Powdered, lb	55	60
Opium, lb	3 60	3 75
Powdered, lb	5 50	5 75
Scammony, pure Resin, lb	12 80	13 00
Shellac, lb	48	50
Bleached, lb	45	50
Spruce, true, lb	30	35
Tragacanth, flake, 1st, lb	75	80
Powdered, lb	1 00	1 10
Sorts, lb	45	65
Thus, lb	8	10
Herb, Althea, lb	27	30
Bitterwort, lb	36	40
Burdock, lb	16	18
Boneset, ozs, lb	15	17
Catnip, ozs, lb	17	20
Chiretta, lb	25	30
Coltsfoot, lb	20	38
Feverfew, ozs, lb	53	55
Grindelia robusta, lb	45	50
Horehound, ozs., lb	18	20
Jaborandi, lb	45	50
Lemon Balm, lb	38	40
Liverwort, German, lb	38	40
Lobelia, ozs, lb	15	20
Motherwort, ozs., lb	20	22
Mullein, German, lb	17	20
Pennyroyal, ozs., lb	18	20
Peppermint, ozs., lb	21	22
Rue, ozs., lb	30	35
Sage, ozs., lb	18	20
Spearmint, lb	21	25
Thyme, ozs., lb	18	20
Tansy, ozs., lb	15	18
Wormwood, oz	20	22
Yerba Santa, lb	38	44
Honey, lb	13	15
Hops, fresh, lb	20	25
Indigo, Madras, lb	75	80
Insect Powder, lb	25	28
Isinglass, Brazil, lb	2 00	2 10
Russian, true, lb	6 00	6 50
Leaf, Aconite, lb	25	30
Bay, lb	18	20
Belladonna, lb	25	30
Buchu, long, lb	50	55
Short, lb	20	22
Coca, lb	35	40
Digitalis, lb	15	20
Eucalyptus, lb	18	20
Hyoscyamus	20	25
Matico, lb	70	75

Senna, Alexandria, lb.	$ 25	$ 30
Tinnevelly, lb.	15	25
Stramonium, lb.	20	25
Uva Ursi, lb.	15	18
LEECHES, Swedish, doz	1 00	1 10
LICORICE, Solazzi	45	50
Pignatelli	35	40
Grasso	30	35
V & S—Sticks, 6 to 1 lb., per lb.	27	30
" Purity, 100 sticks in box	75	75
" Purity, 200 sticks in box	1 50	1 50
" Acme Pellets, 5 lb. tins	2 00	2 00
" Lozenges, 5 lb. tins	2 00	2 00
" Tar, Licorice, and Tolu, 5 lb. tins	2 00	2 00
LUPULIN, oz	30	35
LYCOPODIUM, lb	70	80
MACE, lb.	1 20	1 25
MANNA, lb.	1 60	1 75
Moss, Iceland, lb.	9	10
Irish, lb.	9	10
MUSK, Tonquin, oz.	46 00	50 00
NUTGALLS, lb.	21	25
Powdered, lb.	25	30
NUTMEGS, lb.	1 00	1 10
NUX VOMICA, lb.	10	12
Powdered, lb.	25	27
OAKUM, lb.	12	15
OINTMENT, Merc., lb. ½ and ¼.	70	75
Citrine, lb.	45	50
PARALDEHYDE, oz.	20	22
PEPPER, black, lb.	12	13
Powdered, lb.	15	16
PITCH, black, lb.	3	4
Bergundy, true, lb.	10	12
PLASTER, Calcined, bbl. cash	2 25	3 25
Adhesive, yd.	12	13
Belladonna, lb.	65	70
Galbanum Comp., lb.	80	85
Lead, lb.	25	30
POPPY HEADS, per 100	1 00	1 10
ROSIN, Common, lb.	2½	3
White, lb.	3½	4
RESORCIN, white, oz.	25	30
ROCHELLE SALT, lb.	28	30
ROOT, Aconite, lb.	22	25
Althea, cut, lb.	30	35
Belladonna, lb.	25	30
Blood, lb.	15	16
Bitter, lb.	27	30
Blackberry, lb.	15	18
Burdock, crushed, lb	18	20
Calamus, sliced, white, lb	20	25
Canada Snake, lb	30	35
Cohosh, black, lb.	15	20
Colchicum, lb	40	45
Columbo, lb.	20	22
Powdered, lb.	25	30
Coltsfoot, lb.	38	40
Comfrey, crushed, lb.	20	25
Curcuma, powdered, lb.	13	14
Dandelion, lb.	15	18
Elecampane, lb.	15	20
Galangal, lb.	15	18
Gelsemium, lb.	22	25
Gentian or Genitan, lb.	9	10
Ground, lb.	10	12
Powdered, lb.	13	15
Ginger, African, lb.	18	20
Po., lb.	20	22
Jamaica, blchd., lb.	27	30
Po., lb.	30	35
Ginseng, lb.	4 50	4 75
Golden Seal, lb.	75	80
Gold Thread, lb.	90	95
Hellebore, white, powd., lb.	12	15
Indian Hemp	18	20
Ipecac, lb.	1 75	2 00
Powdered, lb.	2 00	2 25
Jalap, lb.	55	60
Powdered, lb.	60	65
Kava Kava, lb.	40	90
Licorice, lb.	12	15
Powdered, lb.	13	15
Mandrake, lb.	13	18
Masterwort, lb.	16	40
Orris, Florentine, lb.	30	35
Powdered, lb	40	45
Pareira Brava, true, lb.	40	45
Pink, lb	40	45
Parsley, lb.	30	35
Pleurisy, lb.	20	25
Poke, lb.	15	18
Queen of the Meadow, lb.	$ 18	$ 20
Rhatany, lb	20	30
Rhubarb, lb.	75	2 50
Sarsaparilla, Hond, lb.	40	45
Cut, lb.	50	55
Senega, lb.	55	65
Squill, lb	13	15
Stillingia, lb.	22	25
Powdered, lb.	25	27
Unicorn, lb.	38	40
Valerian, English, lb. true.	20	25
Virginia, Snake, lb	40	45
Yellow Dock, lb.	15	18
RUM, Bay, gal.	2 50	2 75
Essence, lb.	3 00	3 25
SACCHARIN, oz.	1 25	1 50
SEED, Anise, Italian, sifted, lb.	13	15
Star, lb.	35	40
Burdock, lb.	30	35
Canary, bag or less, lb.	5	6
Caraway, lb.	10	13
Cardamom, lb	1 25	1 50
Celery	25	30
Colchicum	50	60
Coriander, lb.	10	12
Cumin, lb.	15	20
Fennel, lb.	15	17
Fenugreek, powdered, lb.	7	9
Flax, cleaned, lb.	3½	4
Ground, lb.	4	5
Hemp, lb.	5	6
Mustard, white, lb.	11	12
Powdered, lb	15	20
Pumpkin	25	30
Quince, lb.	65	70
Rape, lb.	8	9
Strophanthus, oz.	50	55
Worm, lb.	22	25
SEIDLITZ MIXTURE, lb.	25	30
SOAP, Castile, Mottled, pure, lb.	10	12
White, Conti's, lb.	15	16
Powdered, lb.	25	35
Green (Sapo Viridis), lb.	15	25
SPERMACETI, lb.	55	60
TURPENTINE, Chian, oz.	75	80
Venice, lb	10	12
WAX, White, lb.	50	75
Yellow	40	45
WOOD, Guaiac, rasped	5	6
Quassia chips, lb.	10	12
Red Saunders, ground, lb.	5	6
Santal, ground, lb.	5	6

CHEMICALS.

ACID, Acetic, lb.	12	13
Glacial, lb.	45	50
Benzoic, English, oz.	20	25
German, oz.	10	12
Boracic, lb.	13	14
Carbolic Crystals, lb.	28	30
Calvert's No. 1, lb	2 10	2 15
No. 2, lb.	1 35	1 40
Citric, lb.	45	50
Gallic, oz.	10	12
Hydrobromic, diluted, lb.	30	35
Hydrocyanic, diluted, oz. bottles doz	1 50	1 60
Lactic, concentrated, oz.	22	25
Muriatic, lb	3	5
Chem, pure, lb.	18	20
Nitric, lb.	10½	13
Chem. pure, lb.	25	30
Oleic, purified, lb.	75	80
Oxalic, lb.	12	13
Phosphoric, glacial, lb.	1 00	1 10
Dilute, lb.	13	17
Pyrogallic, oz.	30	35
Salicylic, white, lb.	1 00	1 10
Sulphuric, carboy, lb.	2½	2¾
Bottles, lb.	5	6
Chem. pure, lb.	18	20
Tannic, lb.	80	85
Tartaric, powdered, lb.	35	38
ACETANILID, lb.	75	80
ACONITINE, grain	4	5
ALUM, cryst., lb.	1¾	3
Powdered, lb.	3	4
AMMONIA, Liquor, lb., .880.	10	12
AMMONIUM, Bromide, lb.	80	85
Carbonate, lb.	14	15
Iodide, oz.	35	40
Nitrate, crystals, lb.	40	45
Muriate, lb.	12	16
Valerianate, oz.	$ 55	$ 60
AMYL, Nitrite, oz.	16	18
ANTINERVIN, oz.	85	00
ANTIKAMNIA	1 25	1 30
ANTIPYRIN, oz.	1 10	1 20
ARISTOL, oz.	1 85	2 00
ARSENIC, Donovan's sol., lb.	25	30
Fowler's sol., lb.	10	13
Iodide, oz.	50	55
White, lb.	6	7
ATROPINE, Sulp. in ¼ ozs. 80c., oz.	6 00	6 25
BISMUTH, Ammonia-citrate, oz	35	40
Iodide, oz.	50	55
Salicylate, oz.	20	25
Subcarbonate, lb.	1 75	2 00
Subnitrate, lb.	1 40	1 60
BORAX, lb.	7	8
Powdered, lb.	8	9
BROMINE, oz.	8	13
CADMIUM, Bromide, oz.	20	25
Iodide, oz.	45	50
CAFFEINE, oz.	60	65
Citrate, oz.	60	65
CALCIUM, Hypophosphite, lb.	1 50	1 60
Iodide, oz.	95	1 00
Phosphate, precip., lb.	35	38
Sulphide, oz.	5	6
CERIUM, Oxalate, oz.	10	12
CHINOIDINE, oz.	15	18
CHLORAL, Hydrate, lb.	1 25	1 30
Croton, oz.	75	80
CHLOROFORM, lb.	60	1 90
CINCHONINE, sulphate, oz.	25	30
CINCHONIDINE, Sulph., oz.	15	20
COCAINE, Mur., oz.	6 00	7 00
CODEIA, ¼ oz	70	75
COLLODION, lb.	65	70
COPPER, Sulph., (Blue Vitriol) lb.	6	7
Iodide, oz.	65	70
COPPERAS, lb.	1	3
DIURETIN, oz.	1 60	1 65
ETHER, Acetic, lb.	75	80
Sulphuric, lb.	40	50
EXALGINE, oz.	1 00	1 10
HYOSCYAMINE, Sulp., crystals, gr.	25	30
IODINE, lb.	4 75	5 50
IODOFORM, lb.	6 00	7 00
IODOL, oz.	1 40	1 50
IRON, by Hydrogen	80	85
Carbonate, Precip., lb.	15	16
Sacch., lb.	30	35
Chloride, lb.	45	55
Sol., lb.	13	16
Citrate, U.S.P., lb.	90	1 00
And Ammon., lb.	70	75
And Quinine, lb.	1 50	3 00
Quin. and Stry., oz.	18	30
And Strychnine, oz.	13	15
Dialyzed, Solution, lb.	50	55
Ferrocyanide, lb.	55	60
Hypophosphites, oz.	25	30
Iodide, oz.	40	45
Syrup, lb.	40	45
Lactate, oz.	5	6
Pernitrate, solution, lb.	15	16
Phosphate scales, lb.	1 25	1 30
Sulphate, pure, lb.	7	9
Exsiccated, lb.	8	10
And Potass. Tartrate, lb.	80	85
And Ammon Tartrate, lb.	80	85
LEAD, Acetate, white, lb.	13	15
Carbonate, lb.	7	8
Iodide, oz.	35	40
Red, lb.	7	9
LIME, Chlorinated, bulk, lb.	4	5
In pakages, lb.	6	7
LITHIUM, Bromide, oz.	30	35
Carbonate, oz.	30	35
Citrate, oz.	25	30
Iodide, oz.	50	55
Salic ate, oz.	35	40
MAGNESIUM, Calc., lb.	55	60
Carbonate, lb.	18	20
Citrate, gran., lb.	35	40
Sulph. (Epsom salt), lb.	1¾	3
MANGANESE, Black Oxide, lb.	5	7
MENTHOL, oz.	55	66
MERCURY, lb.	75	80
Ammon (White Precip.)	1 25	1 30
Chloride, Corrosive, lb.	1 00	1 10
Calomel, lb.	1 00	1 10
With Chalk, lb.	60	65

"Master and Man," specially translated from the Russian for *Frank Leslie's Popular Monthly*, and illustrated by Fogarty. A charming novelty is "A Daughter of the Samurai," by Teiichi Yamagata, being an up-to-date Japanese love story written in English by a Japanese author.

People everywhere are standing aghast at the wondrous strides of the *Family Herald and Weekly Star*, Montreal. Certainly few Canadians were prepared to see a Canadian paper take the head of the procession and to become such a conspicuous all-round favorite so soon. The *Family Herald and Weekly Star*, Montreal, is simply a marvellous production, and to think that it is only a dollar a year adds to everybody's genuine amazement. It is well worth while sending to the publishers, Montreal, for a sample copy, which we are told will be sent free, just to enable people to see what can be produced in the newspaper line for a dollar a year. Few people will credit their own senses when they see it. Artists who have seen the premium picture to be given with the *Family Herald* this year ("Little Queenie," we think, is the name of it) say that the premium is quite as wonderful as the paper itself. Every one must admit that the *Family Herald* has carved out a great place for itself, not only on this continent but throughout the world.

The Christmas *Ladies' Home Journal* by far surpasses, both in literary and artistic excellence, any previous issue of that popular magazine. Conspicuous among the contributors are ex-President Harrison, who gives the introductory paper of the series he is preparing upon "This Country of Ours"; Mrs. Mary Anderson de Navarro, who most interestingly tells of "My First Appearance on the Stage"; and Mary E. Wilkins, who gives the first of "Neighborhood Types" papers. Rudyard Kipling's latest and best romance, "William the Conqueror" (richly illustrated by W. L. Taylor), is begun in the Christmas *Journal*, as is Julia Magruder's new novelette, "The Violet," which Charles Dana Gibson has illustrated, while Mrs. Burton Harrison's fascinating story, "The Holiday Dance at Worrosquoyacke" (pictures by W. T. Smedley), is delightfully concluded. The artists represented in the Christmas *Journal* are among the most notable illustrators, and include A. B. Frost, Kate Greenaway, W. L. Taylor, C. D. Gibson, Alice Barber Stephens, W. T. Smedley, E. Grivaz, E. M. Hallowell, Abby E. Underwood, Miss E. S. Green, W. S. Rice. By the Curtis Publishing Company, Philadelphia. One dollar per year; ten cents per copy.

Stirring events are happening at the present time, to comprehend which requires careful study and observation. In the far east, in Europe, and in our own country stupendous political and commercial changes are developing, in which every intelligent citizen is interested. No greater assistance to a proper understanding of the progress of the world can be found than in the pages of *Current History*, the 3rd quarterly number of which is now published (253 pages, abundantly illustrated). The missionary outrages in China and the whole question of mission work are reviewed; and the general situation in the Orient as regards the present and future relations of the European powers is depicted with scholarly insight. The Armenian problem and the Cuban revolt are comprehensively discussed; and the silver question is fully presented, with accounts of the various free-silver and sound-money conventions. A biographical sketch of Pasteur, whose portrait forms the frontispiece, is written in a readable style, pointing out clearly the nature and significance of the great scientist's discoveries. The recent significant developments in the Balkan states are ably treated, with a full sketch of M. Stambouloff's career. And so on all around the world. Almost every country is visited, and the reader put in ready touch with the most important incidents in each. Hundreds of topics are treated, which space forbids to mention. A few noteworthy ones are: The political campaign; the Atlanta exposition; Sunday excise law enforcement in New York city; South Carolina Constitutional Convention; Manitoba school question and copyright question in Canada; Results of the British general election; the new Salisbury cabinet; labor developments here and abroad; latest discoveries regarding Argon and Helium; the Antarctic continent; results of last Peary expedition; Pan-American Congress of Religion and Education; National Educational Association; review of sociological and religious topics; a classified list, with critical notices, of leading books issuing from the press; and biographical sketches of prominent persons who have died, etc. For five years *Current History* has maintained an unbroken reputation for breadth of view, accuracy, and fairness of treatment. It is an admirable handbook to keep near by at all times; and is so arranged that the reader, once acquainted with it, knows just where to turn for any desired information.

(Buffalo, N.Y.: Garretson, Cox & Co. $1.50 a year; single number, 40 cents; sample copy, 10 cents; specimen pages and circulars free.)

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Drug Reports.

England.

London, Nov. 27th, 1895.

Business has been fairly brisk during the month, and prices are well maintained. Acid chrysophanic has further advanced, and carbolic is fractionally dearer. Glycerin is a strong market, but cream of tartar is easier. Menthol is still on the up grade, whilst camphor is weak. Advances have also occurred in saffron, cod liver oil, and copaiba. Tolu is getting very dear, and balsam of Peru is firmly held. Opium is quiet, and will probably tend downwards.

Lead Ointment Without Fat.

Gawalowski states that when sugar of lead is dissolved in glycerin, and the solution gradually cooled until crystallization takes place, the lead salt, separating on stirring closely resembles tallow in appearance; it is soluble in water, melts at the temperature of the body, and is readily absorbed by the skin. After some time the preparation becomes crystalline, and consequently it must always be prepared at the time it is required.—*Pharm. Post, 1895, 566.*

To preserve mucilage, use water that has been boiled some minutes in contact with tolu balsam.

To clean a discolored show globe, rinse with strong hydrochloric or nitric acid, and, if this fails, throw into the acid a small portion of sand.

To remove ringworm, rub briskly with oil turpentine, wash with ten per cent. carbolic acid soap, and, after drying, make two or three applications of tincture iodine.

To make a pure lard carbonate, dissolve litharge in a hot solution of Rochelle salts; passing through a solution of carbonic acid gas will precipitate the carbonate of lead.

The will of M. Pasteur, according to Paris papers, reads as follows: "This is my testament. I leave to my wife all that the law allows me to leave her. May my children never depart from the path of duty, and always have for their mother that love which she deserves."

To make a permanent creosote pill the following formula has been recommended, (Apoth. Zeit.): Creosote, 6 grams, dry egg albumin, 3 grams, water, 10 drops. After shaking together add liquorice root, liquorice extract, of each a sufficient quantity. Make six pills.

TO PREPARE SYRUP OF SENEGA.—It is suggested that five grammes of alcoholic extract of senega be dissolved in fifty grammes of dilute alcohol, mixed with nine-hundred and ninety-five grammes of syrup evaporated to one thousand grammes.

TONS OF FLOWERS AND PERFUMES.—Each year it is estimated that 1,860 tons of orange flowers are used, besides 930 tons of roses, 150 tons each of violets and jasmines, 75 tons of tube roses, 30 tons of cassia, and 15 tons of jonquils.

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